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BREDI

Electronic Components Source

APPROVED ✓ APPROVED ✓ APPROVED ✓

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DSG-CANUSA PRODUCTS



Automotive Heat Shrink Products



SPECIALIST FOR HEAT SHRINK TUBING

For more than 45 years, DSG-Canusa is known for developing and producing high-quality heat shrink tubing and cold-applied accessories. In addition to the heat and cold shrink tubing product line, we provide a full range of technically advanced shrink appliances. Years of experience in processing heat shrink materials have resulted in the creation of a variety of processing devices, from a simple heat gun to high-performance shrink tunnels.

Being part of the energy services provider Shawcor with over 6,000 employees in over 20 countries, we combine the resources, expertise and technologies to maintain a reputation for excellence that stems from our unparalleled customer service and catalogue of top quality products.

OUR HSE STANDARD

Shawcor's vision is an Incident and Injury-Free (IIF) workplace, with no harm to people and no damage to the environment. We view Health, Safety and Environment (HSE) as a core value and an integral part of all business activities, and are committed to achieving HSE excellence at all of our locations around the world.

As a member of Shawcor, we share these values and promote safety awareness with a number of features and programs. Some of these activities are a monthly focus on a high-risk activity to contribute to a an incident and injury-free workplace, Advanced Safety Audits (ASA) to enhance the ability of managers and supervisors to engage in positive interactions with workers regarding safety and the Take 5 for Safety initiative to improve safety performance and to reduce incidents when performing non-routine tasks.

> 500 M
SPLICES

are sealed with DSG-Canusa products
in automotive applications per year.

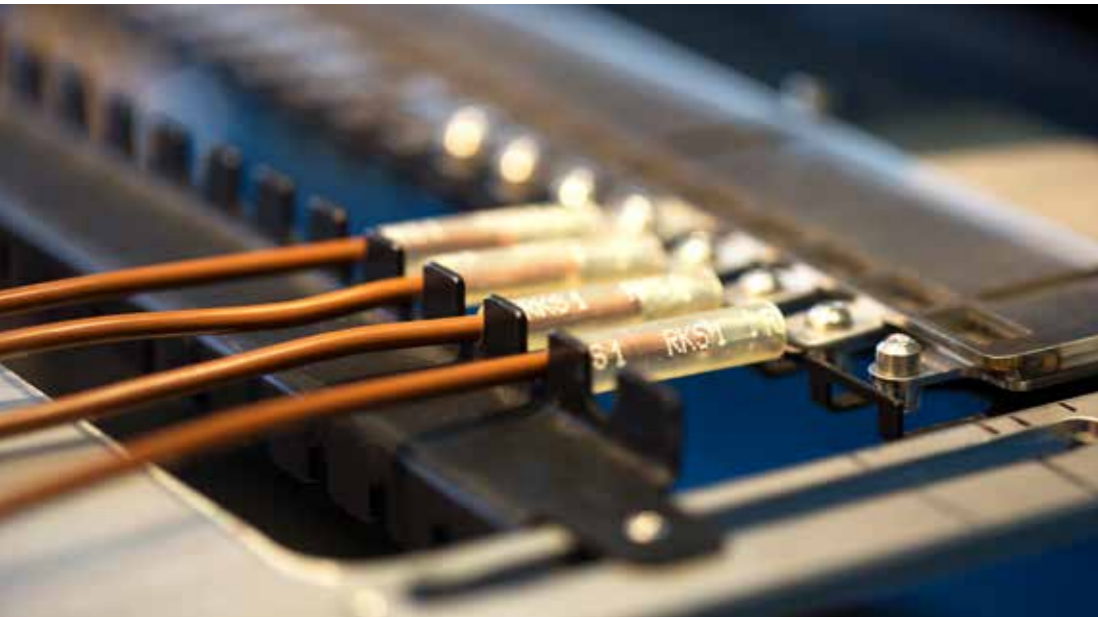
> 500
EMPLOYEES

work for DSG-Canusa.

41
YEARS

has the longest serving
employee been with
DSG-Canusa.





PROVIDING LEADING SOLUTIONS

In the automotive market, we provide unique solutions that deliver quality assurance, lowest total cost and unmatched performance.

Our automotive product line includes heat shrinkable tubing, adhesive lined or single-wall, water blocking systems, protection sleeves and caps, and application equipment to automate the shrink process. These products serve to insulate, seal and protect electronic components, wire, terminals, hoses and pipes, cables and splices.

Our solutions can be off-the-shelf products or custom-designed heat shrink products or application equipment. Either way, we are committed to understanding the customer's application and recommending the right product, equipment and process, making every solution customer-specific.

We are a trusted global supplier with globally located design and manufacturing centers. With years of experience providing solutions to automotive customers, we are now being called upon to develop new technologies as the automotive industry quickly changes to address emerging needs for fuel efficiency, safety and autonomous vehicles.





EVOLVING AUTOMOTIVE MARKET

ELECTROMOBILITY AND AUTONOMOUS DRIVING DEMAND SPECIFIC APPLICATION SOLUTIONS.

While the automotive market is changing faster than ever, our product portfolio is growing to serve our customer's needs. New products include contact protection from HV cables, terminals and insulation of various cable types.

Our global sales and application engineering teams work closely with our automotive customers to address the new challenges from working with lighter-weight materials, new power distribution systems, electric vehicles and autonomous driving systems. We can quickly bring value to our customers due to our broad product line of heat shrink tubing and water-blocking solutions, our commitment to innovation, and our dedicated approach to validating solutions in-house and on the factory floor.



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SPLICE SEALING PRODUCTS

PROVIDING OEM-APPROVED SOLUTIONS FOR YOUR TOUGHEST END TERMINAL SEALING ISSUES.

We have a complete suite of terminal-sealing products that work together to keep fluids out and extend service life of end terminals. From battery and ground connections to copper or aluminum conductors, we have products that solve your sealing problems for good. We take pride in our ability to present a full engineering solution, including application equipment, for your specific needs.

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Crystal clear, semi-rigid, adhesive lined tubing with integral solderless splice connector.

FEATURES AND BENEFITS

- Halogen-free
- Exceptional clarity for visual confirmation of seal
- Seals & protects against water, corrosive compounds, moisture & contaminants
- Tough, durable heat shrink tubing resists abrasion, crimp tool damage & splitting
- Shrinks 40% faster than nylon, preventing wire damage
- Inner adhesive bonds to plastics, rubbers & metals
- Voltage max. 600V
- Meets & conforms to OEM wiring specifications for installation & repairs
- Continuous operating temperature: -55 to 125°C
- Shrink temperature: 90°C min.

STANDARDS

- UL File # E470828

TYPICAL APPLICATIONS

- Wire to Wire splicing
- Environmental protection for crimp-connections & terminals
- Automotive / trucking repair and maintenance
- Commercial, electronics & appliance wiring
- Marine electronics & fleet maintenance



3:1
SHRINK RATIO

-55°C to 125°C
(-67°F to 257°F)
CONTINUOUS OPERATING TEMPERATURE

MARKETS:

Automotive Aftermarket, Military, Aerospace, Industrial, Commercial, Automatic Feed Equipment

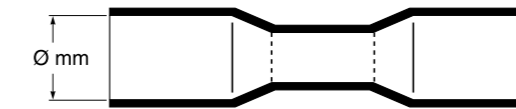
STANDARDS:



Butt connector

DIMENSIONS

COLOUR	WIRE RANGE		STUD SIZE		TUBE DIAMETER	
	AWG	MM²	IN	MM	EXPANDED MM	RECOVERED MM
Clear	28-22	0.1-0.5	n/a	n/a	3.7	1.0
Red	22-18	0.5-1.5	n/a	n/a	4.3	1.4
Blue	16-14	1.5-2.5	n/a	n/a	5.0	1.8
Yellow	12-10	4-6	n/a	n/a	6.5	2.2



Ring connector

DIMENSIONS

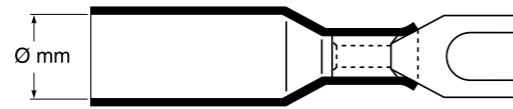
COLOUR	WIRE RANGE		STUD SIZE		TUBE DIAMETER	
	AWG	MM²	IN	MM	EXPANDED MM	RECOVERED MM
Red	22-18	0.5-1.5	#8	4	4.3	1.4
Red	22-18	0.5-1.5	#10	5	4.3	1.4
Red	22-18	0.5-1.5	1/4	6	4.3	1.4
Red	22-18	0.5-1.5	5/16	8	4.3	1.4
Red	22-18	0.5-1.5	3/8	10	4.3	1.4
Blue	16-14	1.5-2.5	#8	4	5.0	1.8
Blue	16-14	1.5-2.5	#10	5	5.0	1.8
Blue	16-14	1.5-2.5	1/4	6	5.0	1.8
Blue	16-14	1.5-2.5	5/16	8	5.0	1.8
Blue	16-14	1.5-2.5	3/8	10	5.0	1.8
Yellow	12-10	4-6	#8	4	6.5	2.2
Yellow	12-10	4-6	#10	5	6.5	2.2
Yellow	12-10	4-6	1/4	6	6.5	2.2
Yellow	12-10	4-6	5/16	8	6.5	2.2
Yellow	12-10	4-6	3/8	10	6.5	2.2



Fork connector

DIMENSIONS

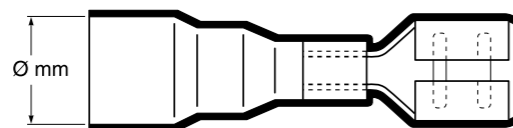
COLOUR	WIRE RANGE		STUD SIZE		TUBE DIAMETER	
	AWG	MM ²	IN	MM	EXPANDED MM	RECOVERED MM
Red	22-18	0.5-1.5	#8	4	4.3	1.4
Red	22-18	0.5-1.5	#10	5	4.3	1.4
Blue	16-14	1.5-2.5	#8	4	5.0	1.8
Blue	16-14	1.5-2.5	#10	5	5.0	1.8
Yellow	12-10	4-6	#8	4	6.5	2.2
Yellow	12-10	4-6	#10	5	6.5	2.2



Push connector

DIMENSIONS

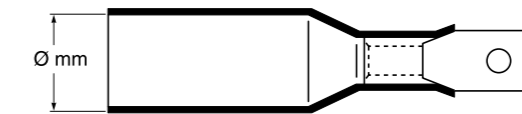
COLOUR	WIRE RANGE		STUD SIZE		TUBE DIAMETER	
	AWG	MM ²	IN	MM	EXPANDED MM	RECOVERED MM
Red	22-18	0.5-1.5	n/a	n/a	4.3	1.4
Blue	16-14	1.5-2.5	n/a	n/a	5.0	1.8
Yellow	12-10	4-6	n/a	n/a	6.5	2.2



Tab connector

DIMENSIONS

COLOUR	WIRE RANGE		STUD SIZE		TUBE DIAMETER	
	AWG	MM ²	IN	MM	EXPANDED MM	RECOVERED MM
Red	22-18	0.5-1.5	n/a	n/a	4.3	1.4
Blue	16-14	1.5-2.5	n/a	n/a	5.0	1.8
Yellow	12-10	4-6	n/a	n/a	6.5	2.2



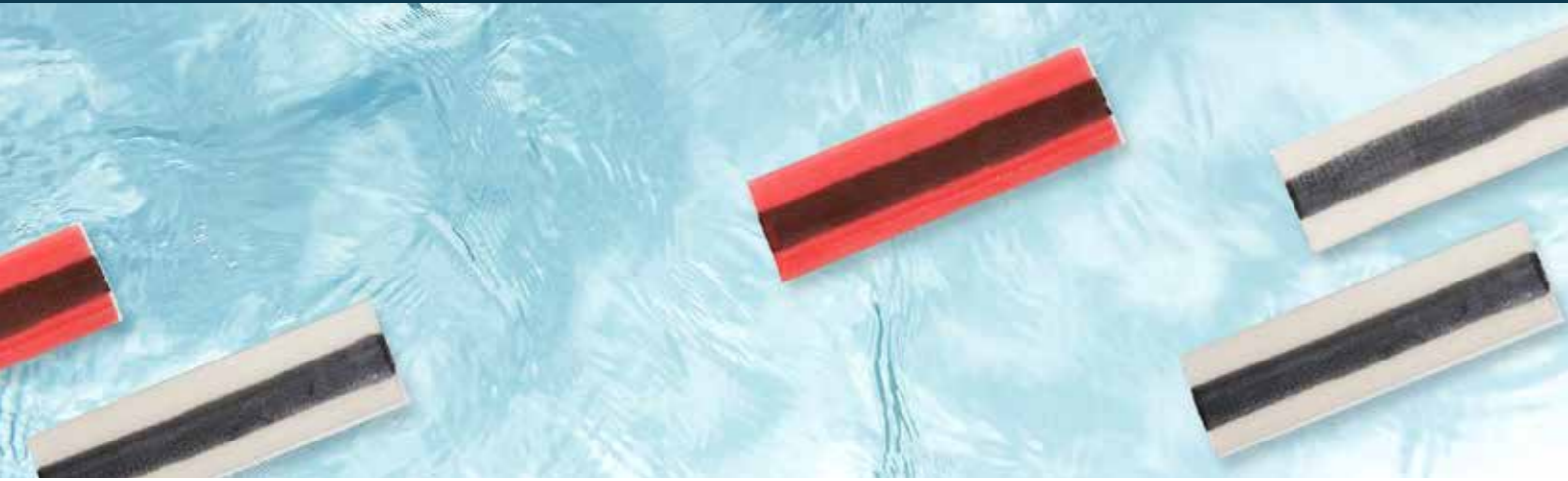
ORDERING

- Determine the wire gauge size that you require
- Select the most appropriate connector for your application
- Please specify the product by: name, insulation color & code Order
- Order example: DERAY®-CrimpSeal II, butt connector, 22-18 AWG, red

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.

APPLICATION NOTES

- Strip wires min 7.5 mm & insert into the crimp barrel. Crimp with a DSG-Canusa (or equivalent) hand tool.
- Heat the shrink tube along the entire length, working from the centre out to the edges until a water tight seal is formed.
- Allow to cool before inspection for splice integrity.
- All splice assemblies will conform to most OEM & repair requirements and specifications.



DERAY®-DuoMelt seals and environmentally protects connectors and cable bundles.

FEATURES AND BENEFITS

- A mastic lined adhesive tape available as a sealing system with a specially designed heat shrink tube that provides longitudinal water sealing for cable bundles, plug connectors and splices
- Cables are embedded individually into the adhesive tape to ensure 100% sealing
- Good chemical and fuel resistance
- Good adhesion to PVC, XLPE and PP-EPDM wire insulating materials
- Continuous operating temperature: -40°C to 85°C or 105°C

STANDARDS

- Approved to OEM longitudinal water blocking specifications

TYPICAL APPLICATIONS

- Water/moisture ingress elimination



100%
SEALING

-40°C to 105°C
(-40°F to 221°F)
CONTINUOUS OPERATING
TEMPERATURE

MARKETS:

Automotive, Industrial

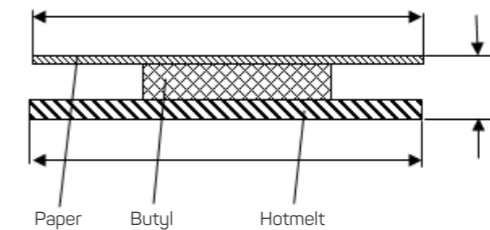
STANDARDS:



Longitudinal water blocking solution

DIMENSIONS

WIDTH		THICKNESS		DELIVERY UNITS	
MM	IN	MM	IN	M	FT
10.0	0.394	1.1	0.043	500	1640
10.0	0.394	1.5	0.059	500	1640
15.0	0.590	1.5	0.059	500	1640
15.0	0.590	1.8	0.071	500	1640



INSTALLATION

The DERAY®-DuoMelt system consists of two primary components:

- DERAY®-DuoMelt mastic adhesive strips, 85°C and 105°C operating temperatures, used to seal all of the individual elements of the cable bundle.
- DERAY®-IAKT / DERAY®-IHKT and IPM heat shrink tubing is cross-linked polyolefin tubing that is used to cover and encapsulate the entire installation.

DERAY®-WorkMan or DERAY®-DockMan shrink ovens are recommended for repeatable application.

ORDERING

Select a dimension which will shrink snugly over the component to be covered. If recovery is restricted the resultant wall thickness will be less than specified.

- Please specify the product name, order number and options you require
- *Example:* DERAY®-DuoMelt 10.0/1.1mm

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.



Adhesive lined heat shrink tubing ideal for effective moisture-resistant insulation.

FEATURES AND BENEFITS

- Flexible
- Adhesive bonds to plastics, rubber, steel polyethylene and many other materials
- Shrink ratio: 9:1
- Continuous operating temperature of outer jacket: -55°C to 85°C
- Shrink temperature: 95°C min.

STANDARDS

- PSA N° 9623093499

TYPICAL APPLICATIONS

- Environmental sealing and strain relief of connectors and terminals
- Moisture sealing and electrical insulation of simple in-line splices
- Abrasion resistance for tubes and pipes
- Repair of damaged wire harnesses



9:1
SHRINK RATIO

-55°C to 85°C
(-67°F to 185°F)
CONTINUOUS OPERATING TEMPERATURE

MARKETS:
Automotive, Industrial

STANDARDS:



Thin wall adhesive lined crosslinked polyolefin

DIMENSIONS

ORDER NUMBER	EXPANDED		RECOVERED			
	Internal Diameter (min) D		Internal Diameter (max) d		Total Wall Thickness (nom) W	
	MM	IN	MM	IN	MM	IN
6110100011	10	0.394	1.1	0.043	1.6	0.063



ORDERING

Select a dimension which will shrink snugly over the component to be covered. If recovery is restricted the resultant wall thickness will be less than specified.

- Please specify the product name, order number and options you require
- *Example:* DERAY®-IAKT NS 10-1.1, clear

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.



A specially designed sealing solution to enhance and provide longitudinal water sealing in cable bundles.

FEATURES AND BENEFITS

- Available in a system that consists of a heat shrink sleeve and adhesive inserts that seal wire harness splices and plug connectors
- Adhesive inserts compliment the adhesive lined shrink tube to ensure splice sealing
- Good chemical and fuel resistance
- Available in U and Star shaped profiles
- Good adhesion to PVC, XLPE and PP-EPDM wire insulating materials
- Continuous operating temperature: -40 °C to 85 °C, 105 °C or 125 °C

STANDARDS

- Approved to OEM longitudinal water blocking specifications

TYPICAL APPLICATIONS

- Sealing of splices, connectors and terminals
- Sealing of small wire harnesses



100%
SEALING

-40°C to 125°C
(-40°F to 257°F)
CONTINUOUS OPERATING
TEMPERATURE

MARKETS:

Automotive

STANDARDS:



Longitudinal water sealing solution

DIMENSIONS

ORDER NUMBER	DIAMETER		LENGTH		DELIVERY UNITS
	MM	IN	MM	IN	Pieces
U5	5.0	0.197	5.0	0.197	10,000
U7	7.0	0.275	5.0	0.197	10,000
S5	5.0	0.197	5.0	0.197	10,000
S9	9.0	0.354	5.0	0.197	10,000

INSTALLATION

The DERAY®-PressMelt system consists of two primary components:

- DERAY®-PressMelt adhesive inserts are available in a variety of geometric shapes as well as 85°C, 105°C and 125°C operating temperature ranges.
- DERAY®-SpliceMelt or DERAY®-IAKT/IHKT heat shrink tubing is cross-linked polyolefin tubing that is used to cover and encapsulate the entire installation.

DERAY®-WorkMan, DERAY®-Shuttle RKS or DERAY®-DockMan shrink ovens are recommended for repeatable application.

ORDERING

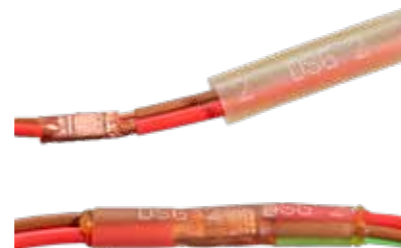
Select a dimension which will shrink snugly over the component to be covered. If recovery is restricted the resultant wall thickness will be less than specified.

- Select options:
 - Temperature: 85 °C, 105 °C or 125 °C
- Please specify the product name, order number and options you require
- *Example:* DERAY®-PressMelt, U7, 85°C, 10,000 PCS

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.



Adhesive lined heat shrink specifically designed to insulate, seal and protect in-line splices in automotive wire harnesses and electronic assemblies.



FEATURES AND BENEFITS

- High shrink ratio to fit varying splice configurations
- Seals and protects against water, moisture and chemicals
- Adhesive bonds readily to PVC, XLPE and PP-EPDM cable jackets
- Quick installation due to rapid shrinkage
- Shrink ratio: 4:1
- Continuous operating temperature: -40°C to 125°C
- Shrink temperature: 120°C min.

STANDARDS

- Approved to all major Automotive OEM splice sealing specifications

TYPICAL APPLICATIONS

- Environmental sealing of in-line splices
- Sealing and strain relief of connectors and terminals
- Abrasion protection and electrical insulation of automotive wiring harness splices

**4:1
SHRINK RATIO**

**-40°C to 125°C
(-40°F to 257°F)
CONTINUOUS OPERATING
TEMPERATURE**

MARKETS:
Automotive, Industrial

STANDARDS:



Adhesive lined crosslinked polyolefin

DIMENSIONS

ORDER NUMBER	EXPANDED		RECOVERED				DELIVERY UNITS	
	Internal Diameter (min) D		Internal Diameter (max) d		Total Wall Thickness (nom) W		Cut Lengths	
	MM	IN	MM	IN	MM	IN	MM	IN
1	6.0	0.236	1.4	0.055	1.45	0.057	50	1.97
2	8.0	0.315	1.6	0.063	1.75	0.069	50	1.97
3	12.0	0.472	2.5	0.098	2.35	0.093	65	2.56
4	18.0	0.709	4.5	0.177	2.65	0.104	75	2.955



ORDERING

Select a dimension which will shrink snugly over the component to be covered. If recovery is restricted the resultant wall thickness will be less than specified.

- Select options:
 - Color: Black (BK), Clear (CL)
- Please specify the product name, order number and options you require
- *Example:* DERAY®-SpliceMelt Cap, size 3, 65mm, black

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.



Adhesive lined, heat shrink insulating caps specifically designed to insulate, seal and protect end or stub splices in wiring harnesses and electronic assemblies.

FEATURES AND BENEFITS

- High shrink ratio allows fewer sizes to cover a wide range of profiles
- Seals and protects against water, moisture and chemicals
- Adhesive bonds readily to PVC, XLPE and PP-EPDM cable jackets
- Quick installation due to rapid shrinkage
- Shrink ratio: 4:1
- Continuous operating temperature: -40°C to 125°C
- Shrink temperature: 125°C min.

STANDARDS

- Approved to all major Automotive OEM splice sealing specifications

TYPICAL APPLICATIONS

- Termination & protection of end and stub splices



4:1

SHRINK RATIO

-40°C to 125°C

(-40°F to 257°F)

CONTINUOUS OPERATING TEMPERATURE

MARKETS:

Automotive, Industrial

STANDARDS:



Adhesive lined insulating caps

DIMENSIONS

ORDER NUMBER	EXPANDED		RECOVERED				DELIVERY UNITS	
	Internal Diameter (min) D		Internal Diameter (max) d		Total Wall Thickness (nom) W		Cap Lengths	
	MM	IN	MM	IN	MM	IN	MM	IN
0	4.5	0.177	1.6	0.063	1.75	0.069	35	1.37
1	6.0	0.236	1.4	0.055	1.45	0.057	50	1.97
2	8.0	0.315	1.6	0.063	1.75	0.069	50	1.97
3	12.0	0.472	2.5	0.098	2.35	0.093	65	2.56
4	18.0	0.709	4.5	0.177	2.65	0.104	70	2.76



ORDERING

Select a dimension which will shrink snugly over the component to be covered. If recovery is restricted the resultant wall thickness will be less than specified.

- Select options:
 - Color: Black (BK), Clear (CL)
- Please specify the product name, order number and options you require
- *Example:* DERAY®-SpliceMelt Cap, size 3, 65mm, clear

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.



The DERAy®-SpliceMeltband seals and environmentally protects connectors and cable bundles.

FEATURES AND BENEFITS

- A specially designed mastic lined adhesive tape available as a sealing system that provides longitudinal water sealing for cable bundles, plug connectors and splices
- Cables are embedded individually into the adhesive tape to ensure 100% sealing
- Good chemical and fuel resistance
- Good adhesion to PVC, XLPE and PP-EPDM wire insulating materials

STANDARDS

- Approved to OEM longitudinal water blocking specifications

TYPICAL APPLICATIONS

- Water/moisture ingress elimination
- Abrasion protection and strain relief



**100%
SEALING**

**-40°C to 125°C
(-40°F to 257°F)**

**CONTINUOUS OPERATING
TEMPERATURE**

MARKETS:

Automotive, Industrial

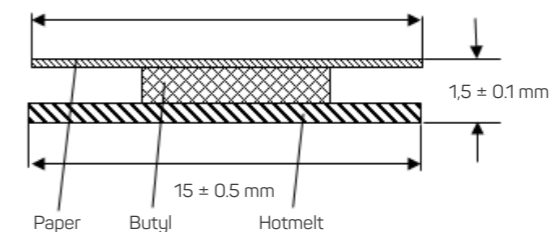
STANDARDS:



Water blocking solution

DIMENSIONS

ORDER NUMBER	WIDTH		THICKNESS		DELIVERY UNITS	
	MM	IN	MM	IN	M	FT
6210001007	10.0	0.394	1.50	0.059	500	1640
6210001507	15.0	0.591	1.80	0.071	500	1640



INSTALLATION

The DERAy®-SpliceMeltband system consists of two primary components:

- DERAy®-SpliceMeltband mastic adhesive strips, used to seal all of the individual elements of the cable bundle.
- DERAy®-SpliceMelt heat shrink tubing is cross-linked polyolefin tubing that is used to cover and encapsulate the entire installation.

DERAY®-WorkMan or DERAy®-DockMan shrink ovens are recommended for repeatable application.

ORDERING

- Select options:
 - Length: Standard spool length or cut pieces on request
- Please specify the product name, order number and options you require
- *Example:* DERAy®-SpliceMeltband, 6210001007, 10-1.5, 500 m reel

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.



WATER BLOCKING PRODUCTS

PROVIDING WATER-BLOCKING SYSTEMS FOR AUTOMOTIVE WIRE HARNESS FEED-THROUGH LOCATIONS.

We understand that sealing wire bundles against water and environmental factors like noise and vapors is important to our customers. Therefore, we have developed a group of products and techniques to seal these critical areas between the wires of large bundles, preventing capillary action of water climbing the harness and entering the vehicle interior. No matter the size of your bundle, DSG-Canusa can help give you the tools, materials and know-how to completely seal your firewall, door, headlight and body harnesses from water intrusion.

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DERAY®-ColdMelt I 125°C – Water blocking system	38



DERAY®-Autoseal is a sealing solution for automotive electrical systems.

The combination of cellulose and superabsorbent polymers will protect electronic systems throughout the system's lifetime. To simplify production and cut costs, a fully automatic process is used to directly provide the cables with DERAy®-Autoseal.

FEATURES AND BENEFITS

- The system works continuously and repeatedly
- If temperature rises, the water absorbed will evaporate
- No assembly time needed due to fully automatic processing
- Absorbs up to 300 times its own weight in water
- Continuous operating temperature: -40°C to 150°C

STANDARDS

- Approved to BMW water blocking specification

TYPICAL APPLICATIONS

- Sealing of automotive electrical systems
- Water moisture ingress elimination
- Wire harness feed-through areas



300x
ABSORPTION OF ITS OWN
WEIGHT IN WATER

-40°C to 150°C
(-40°F to 302°F)
CONTINUOUS OPERATING
TEMPERATURE

MARKETS:

Automotive

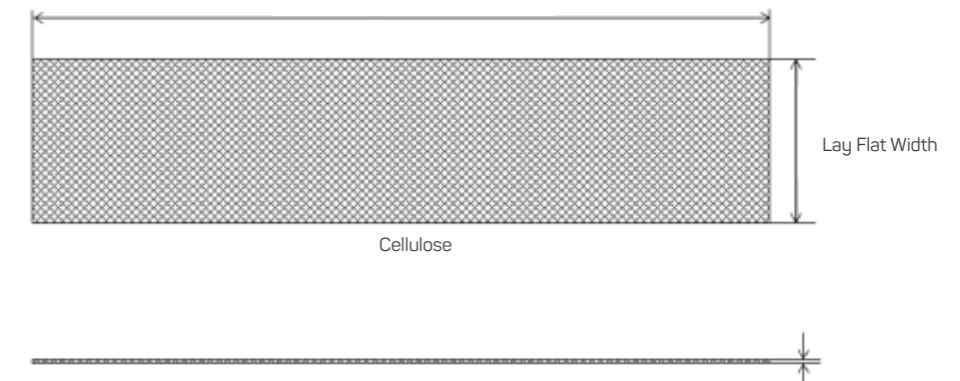
STANDARDS:



Automatic sealing system for wire harnesses

DIMENSIONS

ORDER NUMBER	DIMENSIONS		DELIVERY UNITS	
	Lay Flat Width		Spool	
	MM	IN	M	IN
6220002100M	40.0	1.57	100	328
6220002200M	80.0	3.14	200	656



For automated application, we recommend DERAy®-Autosealman.

ORDERING

- Please specify the product name, order number and options you require
- *Example:* DERAy®-Autoseal, 6220002100M, 40mm, 100m reel

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.



The DERAY®-ColdMelt I is the ultimate water blocking system for automotive wire harness feed-through locations.

FEATURES AND BENEFITS

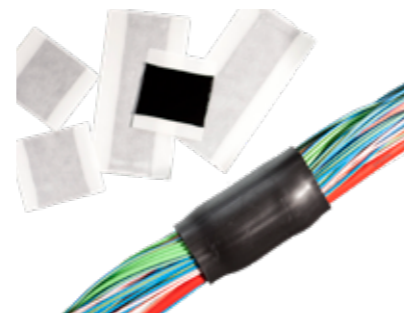
- A specially designed heat shrink tube and mastic strip that seals 100% of the time
- Low temperature installation that reduces thermal stress and protects the cable insulation
- Cables are embedded individually into the mastic strips forming a barrier against fluids and moisture penetration
- Accommodates and seals harness bundles of up to 130 cables
- Flexible installation allows adaption to the production environment
- Grommet standardization
- Good adhesion on PVC, XLPE and PP-EPDM cable insulation
- Continuous operating temperature: -40°C to 85°C

STANDARDS

- Approved to major OEM water blocking specifications

TYPICAL APPLICATIONS

- Water/moisture ingress elimination



100%

SEALING

-40°C to 85°C
(-40°F TO 185°F)

CONTINUOUS OPERATING TEMPERATURE

MARKETS:

Automotive, Industrial

STANDARDS:



Water blocking system

DIMENSIONS: DERAY®-CS HEAT SHRINK TUBE

ORDER NUMBER	EXPANDED		RECOVERED				DELIVERY UNITS	
	Internal Diameter (min) D		Internal Diameter (max) d		Total Wall Thickness (nom) W		Cut Pieces	
	MM	IN	MM	IN	MM	IN	MM	IN
2510100951C	10.0	0.394	3.5	0.138	1.00	0.039	50	1969
2510170951B	17.0	0.669	5.0	0.197	1.20	0.047	50	1969
2510220951A	22.0	0.866	7.5	0.295	2.50	0.098	50	1969
2510300951A	30.0	1.181	9.0	0.354	2.00	0.079	50	1969
2510350951D	35.0	1.378	13.0	0.512	1.90	0.075	62	2441
2510420951B	42.0	1.654	15.0	0.591	2.50	0.098	62	2441
2510500952A	50.0	1.969	15.0	0.591	2.50	0.098	62	2441
2510620955A	62.0	2.441	25.4	1.000	2.40	0.094	62	2441

DIMENSIONS: DERAY®-COLDMELT BUTYLSTRIP

WIDTH		THICKNESS		LENGTH		DELIVERY UNITS
MM	IN	MM	IN	MM	IN	PIECES
Cut Length in Cardboard						
19.0	0.748	1.5	0.059	25 - 110	0.984 - 4.330	based on length

INSTALLATION

The DERAY®-ColdMelt I system consists of two components:

- DERAY®-CS - low shrink temperature heat shrink tube to cover the ColdMelt strips to maintain a tight-cylindrical bundle.
- DERAY®-ColdMelt strips - mastic adhesive strips used to embed all wires forming a water blocking barrier.

The DERAY®-WorkMan is used to shrink the tubing and form the water blocking bundle (approx. up to 20 wires) - ColdMelt Lite. The DERAY®-SealMan is used to shrink the tubing and form the water blocking bundle (> 20 wires).

For detailed installation instructions refer to DSG-Canusa manual instruction VSPZ061.

ORDERING

- Select options:
 - Packaging: Cut pieces or reel
- Please specify the product name, order number and options you require
- *Example:* DERAY®-CS 10-3.5 black, 2510100951C, DERAY®-ColdMelt 19-1.5 / 85°C, 50 mm cut length in cardboard

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.



The DERAY®-ColdMelt I is the ultimate water blocking system for automotive wire harness feed-through locations.

FEATURES AND BENEFITS

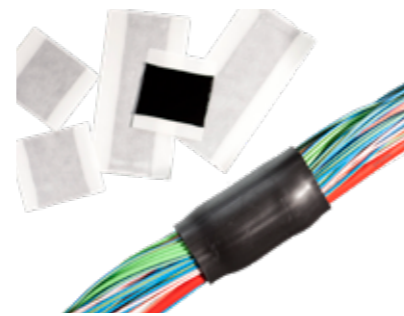
- A specially designed heat shrink tube and mastic strip that seals 100% of the time
- Low temperature installation that reduces thermal stress and protects the cable insulation
- Cables are embedded individually into the mastic strips forming a barrier against fluids and moisture penetration
- Accommodates and seals harness bundles of up to 130 cables
- Flexible installation allows adaption to the production environment
- Grommet standardization
- Good adhesion on PVC, XLPE and PP-EPDM cable insulation
- Continuous operating temperature: -40°C to 105°C

STANDARDS

- Approved to major OEM water blocking specifications

TYPICAL APPLICATIONS

- Water/moisture ingress elimination



100%

SEALING

-40°C to 105°C
(-40°F TO 221°F)

CONTINUOUS OPERATING TEMPERATURE

MARKETS:

Automotive, Industrial

STANDARDS:



Water blocking system

DIMENSIONS: DERAY®-CS HEAT SHRINK TUBE

ORDER NUMBER	EXPANDED		RECOVERED				DELIVERY UNITS	
	Internal Diameter (min) D		Internal Diameter (max) d		Total Wall Thickness (nom) W		Cut Pieces	
	MM	IN	MM	IN	MM	IN	MM	IN
2510100951C	10.0	0.394	3.5	0.138	1.00	0.039	50	1969
2510170951B	17.0	0.669	5.0	0.197	1.20	0.047	50	1969
2510220951A	22.0	0.866	7.5	0.295	2.50	0.098	50	1969
2510300951A	30.0	1.181	9.0	0.354	2.00	0.079	50	1969
2510350951D	35.0	1.378	13.0	0.512	1.90	0.075	62	2441
2510420951B	42.0	1.654	15.0	0.591	2.50	0.098	62	2441
2510500952A	50.0	1.969	15.0	0.591	2.50	0.098	62	2441
2510620955A	62.0	2.441	25.4	1.000	2.40	0.094	62	2441

DIMENSIONS: DERAY®-COLDMELT BUTYLSTRIP

WIDTH		THICKNESS		LENGTH		DELIVERY UNITS
MM	IN	MM	IN	MM	IN	PIECES
Cut Length in Cardboard						
19.0	0.748	1.5	0.059	25 - 110	0.984 - 4.330	based on length

INSTALLATION

The DERAY®-ColdMelt I system consists of two components:

- DERAY®-CS - low shrink temperature heat shrink tube to cover the ColdMelt strips to maintain a tight-cylindrical bundle.
- DERAY®-ColdMelt strips - mastic adhesive strips used to embed all wires forming a water blocking barrier.

The DERAY®-WorkMan is used to shrink the tubing and form the water blocking bundle (approx. up to 20 wires) - ColdMelt Lite. The DERAY®-SealMan is used to shrink the tubing and form the water blocking bundle (> 20 wires).

For detailed installation instructions refer to DSG-Canusa manual instruction VSPZ061.

ORDERING

- Select options:
 - Packaging: Cut pieces or reel
- Please specify the product name, order number and options you require
- *Example:* DERAY®-CS 10-3.5 black, 2510100951C, DERAY®-ColdMelt 19-1.5 / 105°C, 50 mm cut length in cardboard

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.



The DERAY®-ColdMelt I is the ultimate water blocking system for automotive wire harness feed-through locations.

FEATURES AND BENEFITS

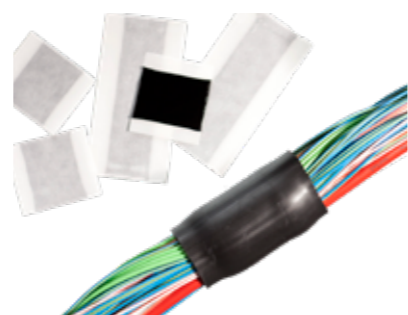
- A specially designed heat shrink tube and mastic strip that seals 100% of the time
- Low temperature installation that reduces thermal stress and protects the cable insulation
- Cables are embedded individually into the mastic strips forming a barrier against fluids and moisture penetration
- Accommodates and seals harness bundles of up to 130 cables
- Flexible installation allows adaption to the production environment
- Grommet standardization
- Good adhesion on PVC, XLPE and PP-EPDM cable insulation
- Continuous operating temperature: -40°C to 125°C

STANDARDS

- Approved to major OEM water blocking specifications

TYPICAL APPLICATIONS

- Water/moisture ingress elimination



100%

SEALING

-40°C to 125°C
(-40°F TO 257°F)

CONTINUOUS OPERATING TEMPERATURE

MARKETS:

Automotive, Industrial

STANDARDS:



Water blocking system

DIMENSIONS: DERAY®-CS HEAT SHRINK TUBE

ORDER NUMBER	EXPANDED		RECOVERED				DELIVERY UNITS	
	Internal Diameter (min) D		Internal Diameter (max) d		Total Wall Thickness (nom) W		Cut Pieces	
	MM	IN	MM	IN	MM	IN	MM	IN
2510100951C	10.0	0.394	3.5	0.138	1.00	0.039	50	1969
2510170951B	17.0	0.669	5.0	0.197	1.20	0.047	50	1969
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2510350951D	35.0	1.378	13.0	0.512	1.90	0.075	62	2441
2510420951B	42.0	1.654	15.0	0.591	2.50	0.098	62	2441
2510500952A	50.0	1.969	15.0	0.591	2.50	0.098	62	2441
2510620955A	62.0	2.441	25.4	1.000	2.40	0.094	62	2441

DIMENSIONS: DERAY®-COLDMELT BUTYLSTRIP

WIDTH		THICKNESS		LENGTH		DELIVERY UNITS
MM	IN	MM	IN	MM	IN	PIECES
Cut Length in Cardboard						
19.0	0.748	1.5	0.059	25 - 110	0.984 - 4.330	based on length

INSTALLATION

The DERAY®-ColdMelt I system consists of two components:

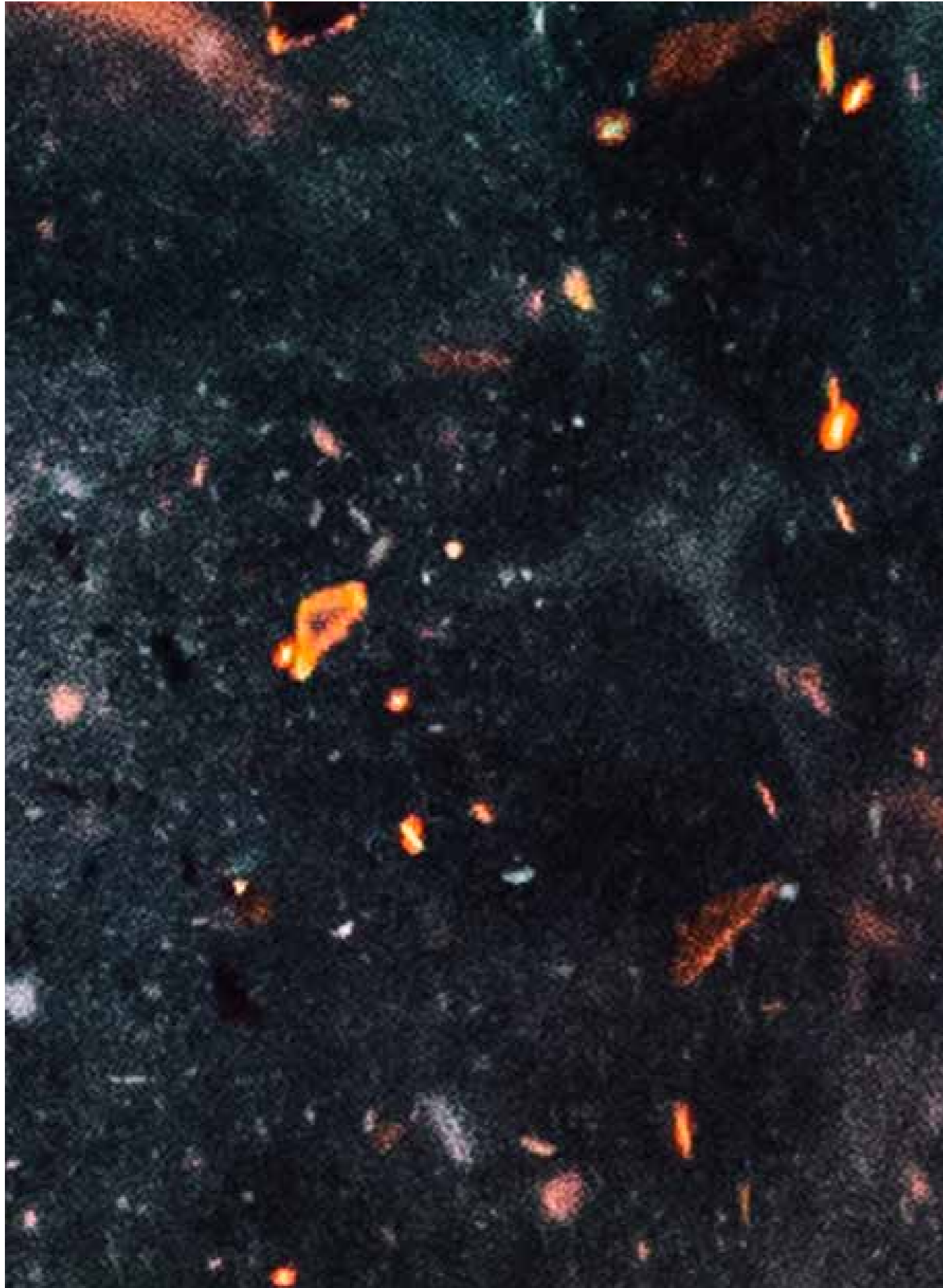
- DERAY®-CS - low shrink temperature heat shrink tube to cover the ColdMelt strips to maintain a tight-cylindrical bundle.
- DERAY®-ColdMelt strips - mastic adhesive strips used to embed all wires forming a water blocking barrier.

The DERAY®-WorkMan is used to shrink the tubing and form the water blocking bundle (approx. up to 20 wires) - ColdMelt Lite. The DERAY®-SealMan is used to shrink the tubing and form the water blocking bundle (> 20 wires). For detailed installation instructions refer to DSG-Canusa manual instruction VSPZ061.

ORDERING

- Select options:
 - Packaging: Cut pieces or reel
- Please specify the product name, order number and options you require
- *Example:* DERAY®-CS 10-3.5 black, 2510100951C, DERAY®-ColdMelt 19-1.5 / 125°C, 50 mm cut length in cardboard

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.



HIGH TEMPERATURE PRODUCTS

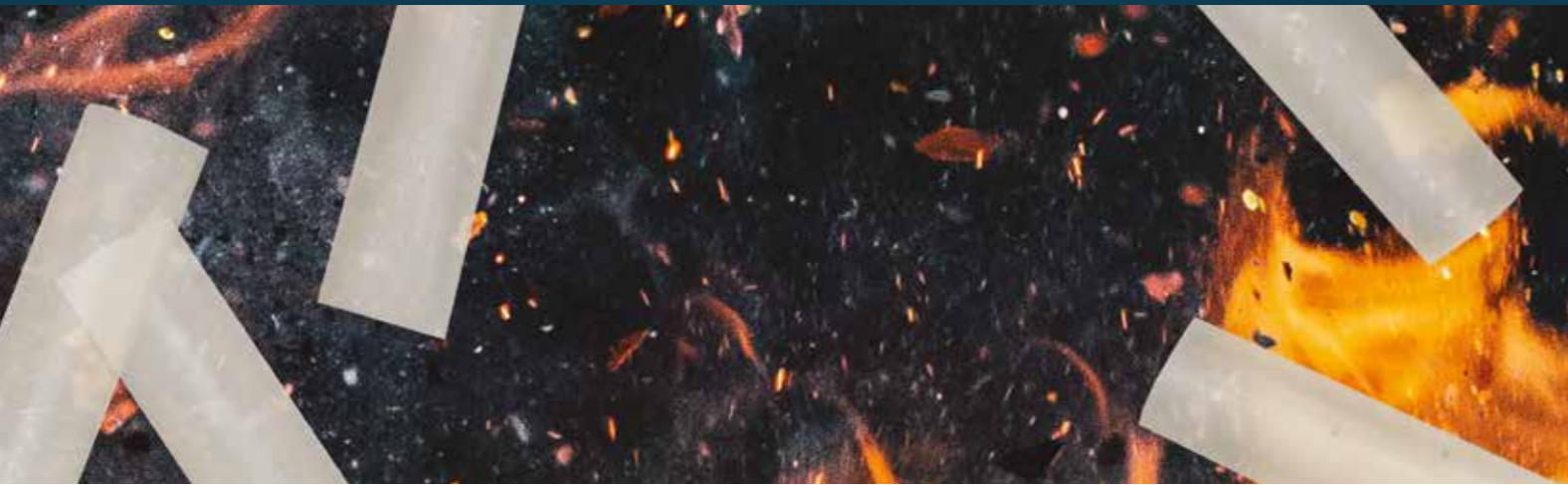
SEALING AND PROTECTING CABLE CONNECTIONS, WIRE HARNESSES AND ELECTRONIC SYSTEMS WITH HEAT SHRINK TUBING.

With the increasing electric content in vehicles, wire and cable sensors are being exposed to higher temperatures in the engine department, emissions systems, commercial vehicle applications and electric vehicles.

Traditionally temperatures in the engine department have been less than 135°C, but now industry applications are more frequently requiring temperatures above 150°C. DSG-Canusa products from Shawcor's Connection Systems group provide special materials for these demanding applications. These products, made of materials ranging from elastomers to fluoropolymers, offer increased protection against extreme temperatures and harsh operating environments. The temperature range includes 175°C and 190°C-rated PVDF materials and goes up up to 220°C and even 260°C.

HIGH TEMPERATURE PRODUCTS40-55

DERAY®-KY 175 – Semi-rigid thin wall Kynar®	42
DERAY®-KYF 190 – Flexible thin wall Kynar®	44
DERAY®-PTFE – Modified crosslinked fluoropolymer	46
DERAY®-PTFE AWG – Modified crosslinked fluoropolymer.....	48
DERAY®-V25 – Crosslinked elastomer.....	50
DERAY®-VT 220 – Crosslinked Viton®	52
DERAY®-VT 220 TW – Thin wall crosslinked Viton®.....	54



Clear, thin wall Kynar® heat shrink tubing ideal for electronic, automotive and military applications requiring protection and see through inspection in aggressive environments.



FEATURES AND BENEFITS

- Highly flame retardant
- Semi-rigid
- High withstand to abrasion and cut-through
- Excellent chemical and solvent resistance
- Shrink ratio: 2:1
- Continuous operating temperature: -55°C to 175°C
- Shrink temperature: 175°C min.

STANDARDS

- UL-224 VW-1
- CSA OFT
- SAE-AMS-DTL 23053/8
- DEF STAN 59-97 Type 3, BS G198 Part 4 Type 20
- VG 95343 Part 5 Type F
- PAN 6491
- VW 60360-3

TYPICAL APPLICATIONS

- Strain relief and insulation of high temperature wires
- Excellently suitable for applications where high chemical and abrasion resistance is required
- All areas where outstanding electrical insulation is required

2:1
SHRINK RATIO

-55°C to 175°C
(-67°F to 347°F)
CONTINUOUS OPERATING TEMPERATURE

MARKETS:
Automotive, Industrial, Aerospace, Defense

STANDARDS:



Semi-rigid thin wall Kynar®

DIMENSIONS

ORDER NUMBER	EXPANDED		RECOVERED				DELIVERY UNITS		
	Internal Diameter (min) D		Internal Diameter (max) d		Total Wall Thickness (nom) W		Spool Lengths		Cut Pieces
	MM	IN	MM	IN	MM	IN	M	FT	1.22 M / 48 IN
0047	1.2	3/64	0.6	0.024	0.24	0.009	300	984	25
0063	1.6	1/16	0.8	0.031	0.24	0.009	300	984	25
0094	2.4	3/32	1.2	0.047	0.24	0.009	300	984	25
0125	3.2	1/8	1.6	0.063	0.24	0.009	300	984	25
0187	4.8	3/16	2.4	0.094	0.24	0.009	300	984	25
0250	6.4	1/4	3.2	0.126	0.30	0.012	300	984	25
0375	9.5	3/8	4.8	0.189	0.30	0.012	150	492	10
0500	12.7	1/2	6.4	0.252	0.30	0.012	100	328	10
0750	19.0	3/4	9.5	0.374	0.40	0.016	50	164	10
1000	25.4	1	12.7	0.500	0.50	0.020	50	164	10



ORDERING

Select a dimension which will shrink snugly over the component to be covered. If recovery is restricted the resultant wall thickness will be less than specified.

- Select options:
 - Color: Clear (CL)
- Please specify the product name, order number and options you require
- *Example:* DERAY®-KY 175, 0125 or 1/8 in, clear

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.

Kynar® is a registered trademark of ATOFINA



High temperature Kynar® thin wall heat shrink tubing, with extreme chemical resistance ideal for protection of components in a wide range of severe temperature and harsh environments.



FEATURES AND BENEFITS

- Highly flame retardant
- Flexible
- High temperature resistance
- Excellent chemical and solvent resistance
- Designed to RAL2003 orange color
- Shrink ratio: 2:1
- Continuous operating temperature: -55°C to 190°C
- Shrink temperature: 175°C min.

STANDARDS

- UL-224 VW-1
- SAE-AMS-DTL-23053/18 Class 2
- VW 60360-3

TYPICAL APPLICATIONS

- High temperature performance that meets or exceeds military, industrial and automotive standards
- Provides excellent electrical insulation
- High flexible and abrasion resistance requiring applications
- Protective see through covering for high temperature and aggressive chemical applications
- Protecting component for connectors and HV cable-lugs in electric vehicles

2:1
SHRINK RATIO

-55°C to 190°C
(-67°F to 374°F)

CONTINUOUS OPERATING TEMPERATURE

MARKETS:

Automotive, Industrial, Industrial OEM

STANDARDS:

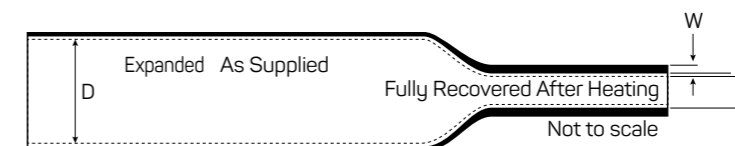


Flexible thin wall Kynar®

DIMENSIONS

ORDER NUMBER	EXPANDED		RECOVERED				DELIVERY UNITS		
	Internal Diameter (min) D		Internal Diameter (max) d		Total Wall Thickness (nom) W		Spool Lengths		Cut Pieces
	MM	IN	MM	IN	MM	IN	M	FT	1.22M / 48IN
0047	1.2	3/64	0.6	0.024	0.24	0.009	300	984	25
0063	1.6	1/16	0.8	0.031	0.24	0.009	300	984	25
0094	2.4	3/32	1.2	0.047	0.24	0.009	300	984	25
0125	3.2	1/8	1.6	0.063	0.24	0.009	300	984	25
0187	4.8	3/16	2.4	0.094	0.24	0.009	300	984	25
0250	6.4	1/4	3.2	0.126	0.30	0.012	300	984	10
0375	9.5	3/8	4.8	0.189	0.30	0.012	150	492	10
0500	12.7	1/2	6.4	0.252	0.30	0.012	100	328	10
0591*	15.0	0.591	6.4	0.252	0.80	0.031	100	328	-

*Size 0591 in black and clear against MOQ



ORDERING

Select a dimension which will shrink snugly over the component to be covered. If recovery is restricted the resultant wall thickness will be less than specified.

- Select options:
 - Color: Clear (CL), Black (BK) & Orange (OE)
- Please specify the product name, order number and options you require
- *Example:* DERAY®-KYF 190, 0125 or 1/8in, clear

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.

Kynar® is a registered trademark of ATOFINA



High shrink ratio Teflon® heat shrink tubing specially designed for protecting applications in extreme electrical, chemical and thermal environments.

FEATURES AND BENEFITS

- Highly flame retardant
- Semi-rigid
- High shrink ratio
- Chemically inert
- Shrink ratio: 4:1 or 2:1
- Continuous operating temperature: -65°C to 260°C
- Shrink temperature: 340°C min.

STANDARDS

- SAE-AMS-DTL-23053/12 Class 5

TYPICAL APPLICATIONS

- Extremely suitable for insulating and protecting objects from thermal load and chemical influence
- PTFE's excellent dielectric properties make this an ideal material for covering, protecting, and insulating wire harnesses and other bundled electrical cables
- Areas where an extreme low coefficient of friction is required
- Used to cover hydraulic hose and couplings to prevent contamination and corrosion



4:1
SHRINK RATIO

-65°C to 260°C
(-85°F to 500°F)
CONTINUOUS OPERATING TEMPERATURE

MARKETS:

Automotive, Industrial, Aerospace, Defense

STANDARDS:



Modified crosslinked fluoropolymer

DIMENSIONS

ORDER NUMBER	EXPANDED		RECOVERED				DELIVERY UNITS
	Internal Diameter (min) D		Internal Diameter (max) d		Total Wall Thickness (nom) W		Cut Pieces
	MM	IN	MM	IN	MM	IN	1.22M / 48IN
0078	1.98	3/32	0.64	0.025	0.23	0.009	25
0125	3.18	1/8	0.94	0.037	0.31	0.010	25
0187	4.75	3/16	1.27	0.050	0.31	0.012	25
0250	6.35	1/4	1.60	0.063	0.31	0.012	10
0375	9.53	3/8	2.44	0.096	0.31	0.012	10
0500	12.70	1/2	3.66	0.144	0.38	0.015	10
0625	15.88	5/8	4.52	0.178	0.38	0.015	10
0750	19.05	3/4	5.69	0.224	0.38	0.015	10
1000	25.40	1	7.06	0.278	0.38	0.015	10
1250	31.75	1 1/4	8.81	0.347	0.38	0.015	10



ORDERING

Select a dimension which will shrink snugly over the component to be covered. If recovery is restricted the resultant wall thickness will be less than specified.

- Select options:
 - Color: Clear (CL), Black (BK) against MOQ
- Please specify the product name, order number and options you require
- Example: DERAY®-PTFE 4:1, 0250 or 6.35/1.6, clear

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.

Teflon® is a registered trademark of u Pont de Nemours & Co. Inc.



High shrink ratio Teflon® heat shrink tubing specially designed for protecting applications in extreme electrical, chemical and thermal environments.

FEATURES AND BENEFITS

- Highly flame retardant
- Semi-rigid
- High shrink ratio
- Chemically inert
- Shrink ratio: 2:1 (AWG sizes)
- Continuous operating temperature: -65°C to 260°C
- Shrink temperature: 340°C min.

TYPICAL APPLICATIONS

- Extremely suitable for insulating and protecting objects from thermal load and chemical influence
- PTFE's excellent dielectric properties make this an ideal material for covering, protecting, and insulating wire harnesses and other bundled electrical cables
- Areas where an extreme low coefficient of friction is required
- Used to cover hydraulic hose and couplings to prevent contamination and corrosion



**2:1
SHRINK RATIO**

**-65°C to 260°C
(-85°F to 500°F)**

CONTINUOUS OPERATING TEMPERATURE

MARKETS:

Automotive, Industrial, Aerospace, Defense

STANDARDS:



Modified crosslinked fluoropolymer

DIMENSIONS

ORDER NUMBER	EXPANDED		RECOVERED		DELIVERY UNITS
	Internal Diameter (min) D		Internal Diameter (max) d	Total Wall Thickness (nom) W	Cut Pieces
	AWG	MM	MM	MM	1.22M / 48IN
AWG 30	30	0.86	0.38	0.23	25
AWG 28	28	0.97	0.46	0.23	25
AWG 26	26	1.17	0.56	0.23	25
AWG 24	24	1.27	0.64	0.25	25
AWG 22	22	1.40	0.80	0.25	25
AWG 20	20	1.52	0.97	0.30	25
AWG 18	18	1.93	1.17	0.30	25
AWG 16	16	2.36	1.45	0.30	25
AWG 14	14	3.05	1.82	0.30	25
AWG 12	12	3.81	2.26	0.30	25
AWG 10	10	4.85	2.80	0.30	25
AWG 8	8	6.10	3.55	0.38	10
AWG 6	6	7.67	4.40	0.38	10
AWG 4	4	9.40	5.45	0.38	10
AWG 2	2	10.92	6.90	0.38	10
AWG 0	0	11.94	8.56	0.38	10



ORDERING

Select a dimension which will shrink snugly over the component to be covered. If recovery is restricted the resultant wall thickness will be less than specified.

- Select options:
 - Color: Clear (CL), Black (BK) against MOQ
- Please specify the product name, order number and options you require
- *Example:* DERAY®-PTFE AWG 2:1, AWG 30, clear

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.

Teflon® is a registered trademark of u Pont de Nemours & Co. Inc.



DERAY®-V25 is ideal for use where space and weight saving are important. The product is as well available in a thinner walled version as DERAY®-V25 TW on request.



FEATURES AND BENEFITS

- Shrink ratio: 2:1
- Flame retardant
- Flexible
- High abrasion and cut resistance
- Long-term resistance to diesel, hydraulic fluids and chemicals
- Continuous operating temperature: -75°C to 150°C
- Shrink temperature: 150°C min.

STANDARDS

- DEF STAN 59-97 Type 6b, BS G198 Part 3 Type 10A
- SAE-AMS-DTL-23053/16
- VG 95343 Part 5 Type D
- PAN 6480K

TYPICAL APPLICATIONS

- Developed for rugged demands with view to high fuel, chemical and insulation requirements
- Suitable to use in rough environments where an optimum high-temperature fluid resistance, and long term heat resistance is required
- Military/Aerospace and Automotive cables and harnessing

2:1
SHRINK RATIO

-75°C to 150°C
(-103°F to 302°F)

CONTINUOUS OPERATING TEMPERATURE

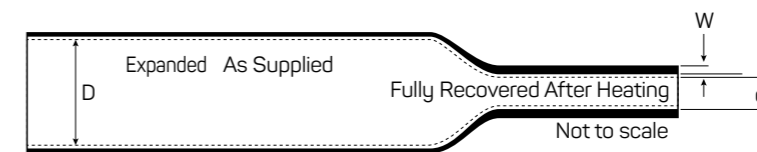
MARKETS:
Automotive, Industrial, Aerospace
Defense, Transit, Utility

STANDARDS:

Modified crosslinked elastomer

DIMENSIONS

ORDER NUMBER	EXPANDED		RECOVERED						DELIVERY UNITS	
	Internal Diameter (min) D		Internal Diameter (max) d		Total Wall Thickness (nom) W		Total Wall Thickness (nom) W		Spool Lengths	
	MM	IN	MM	IN	MM	IN	MM	IN	M	FT
0094	2.4	3/32	1.2	0.047	-	-	0.55	0.022	50	164
0125	3.2	1/8	1.6	0.063	0.80	0.031	0.55	0.022	50	164
0187	4.8	3/16	2.4	0.094	0.90	0.035	0.55	0.022	50	164
0250	6.4	1/4	3.2	0.126	1.00	0.039	0.65	0.026	50	164
0375	9.5	3/8	4.8	0.189	1.10	0.043	0.65	0.026	50	164
0500	12.7	1/2	6.4	0.252	1.30	0.051	0.65	0.026	30	98
0750	19.0	3/4	9.5	0.374	1.50	0.059	0.85	0.033	30	98
1000	25.4	1	12.7	0.500	1.90	0.075	0.95	0.037	30	98
1250	31.8	1 1/4	15.9	0.626	-	-	1.05	0.041	30	98
1500	38.0	1 1/2	19.0	0.748	2.50	0.098	1.05	0.041	15	49
2000	51.0	2	25.4	1.000	3.10	0.122	0.90	0.035	-	-
3000	76.0	3	38.0	1.496	3.30	0.130	1.05	0.041	-	-



ORDERING

Select a dimension which will shrink snugly over the component to be covered. If recovery is restricted the resultant wall thickness will be less than specified.

- Select options:
 - Color: Black (BK)
 - On Request: DERAY®-V 25 TW
- Please specify the product name, order number and options you require
- *Example:* DERAY®-V 25, 0750 or 3/4 in, black

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.



Fluoroelastomer heat shrink tubing suitable for use in electronic systems and components in automotive, military/aerospace and industrial applications requiring outstanding heat and fluid resistance.

FEATURES AND BENEFITS

- Flame retardant
- Flexible
- Highly abrasion resistant
- High withstand to corrosive fluids in extreme temperatures up to 220°C
- Shrink ratio: 2:1
- Continuous operating temperature: -55°C to 220°C
- Shrink temperature: 160°C min.

STANDARDS

- DEF STAN 59-97 Type 4a, BS G198 Part 3 Type 12A
- VG95343 Typ E
- PAN6480L
- GS 95008-3-3

TYPICAL APPLICATIONS

- Bundling and strain relief of wire harnesses in high temperature applications and environments
- Excellently suitable for applications where severe chemical and thermal requirements are crucial
- Highly cut through resistant
- Commonly used for protection of cables against contamination by nearly all commercial hydraulic fluids, minerals and synthetic oils
- Widely used in hydraulic equipment, aircraft manufacture and ship building applications



2:1
SHRINK RATIO

-55°C to 220°C
(-67°F to 428°F)

CONTINUOUS OPERATING TEMPERATURE

MARKETS:

Automotive, Industrial, Aerospace, Defense, Shipboard, Utility, Renewables / Wind

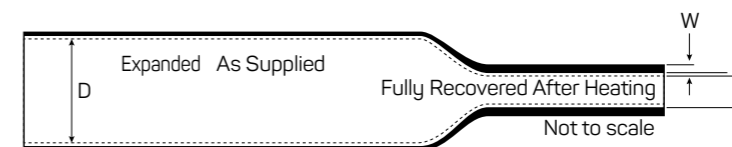
STANDARDS:



Crosslinked Viton®

DIMENSIONS

ORDER NUMBER	EXPANDED		RECOVERED				DELIVERY UNITS	
	Internal Diameter (min) D		Internal Diameter (max) d		Total Wall Thickness (nom) W		Spool Lengths	
	MM	IN	MM	IN	MM	IN	M	FT
0125	3.20	1/8	1.60	0.063	0.80	0.031	50	164
0187	4.80	3/16	2.40	0.094	0.90	0.035	50	164
0250	6.40	1/4	3.20	0.126	0.90	0.035	50	164
0375	9.50	3/8	4.80	0.189	1.00	0.039	50	164
0500	12.70	1/2	6.40	0.252	1.20	0.047	30	98
0750	19.00	3/4	9.50	0.374	1.40	0.055	30	98
1000	25.40	1	12.70	0.500	1.80	0.071	30	98
1500	38.00	1 1/2	19.00	0.748	2.40	0.094	15	49
2000	50.80	2	25.40	1.000	2.80	0.110	15	49



ORDERING

Select a dimension which will shrink snugly over the component to be covered. If recovery is restricted the resultant wall thickness will be less than specified.

- Select options:
 - Color: Black (BK)
- Please specify the product name, order number and options you require
- *Example:* DERAY®-VT 220, 0375 or 3/8in, black

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.

Viton® is a registered trademark of du Pont de Nemours and Co. Inc. for the raw material



Thin wall very flexible fluoroelastomer heat shrink tubing suitable for use in electronic systems and components in automotive, military/aerospace and industrial applications requiring outstanding heat and fluid resistance.



FEATURES AND BENEFITS

- Flame retardant
- Very flexible
- Highly abrasion resistant
- High withstand to corrosive fluids in extreme temperatures up to 200°C
- Shrink ratio: 2:1
- Continuous operating temperature: -55°C to 200°C
- Shrink temperature: 160°C min.

STANDARDS

- AMS-DTL 23053/13

TYPICAL APPLICATIONS

- Bundling and strain relief of wire harnesses in high temperature applications and environments
- Excellently suitable for applications where severe chemical and thermal requirements are crucial
- Highly cut through resistant
- Commonly used for protection of cables against contamination by nearly all commercial hydraulic fluids, minerals and synthetic oils
- Widely used in hydraulic equipment, aircraft manufacture and ship building applications

2:1
SHRINK RATIO

-55°C to 200°C
(-67°F to 392°F)

CONTINUOUS OPERATING TEMPERATURE

MARKETS:

Automotive, Hose & Pipe Protection, Industrial, Aerospace, Defense, Shipboard, Utility, Renewables / Wind

STANDARDS:



Thin wall crosslinked Viton®

DIMENSIONS

ORDER NUMBER	EXPANDED		RECOVERED				DELIVERY UNITS	
	Internal Diameter (min) D		Internal Diameter (max) d		Total Wall Thickness (nom) W		Spool Lengths	
	MM	IN	MM	IN	MM	IN	M	FT
0125	3.2	1/8	1.6	0.063	0.80	0.031	50	164
0187	4.8	3/16	2.4	0.094	0.90	0.035	50	164
0250	6.4	1/4	3.2	0.126	0.90	0.035	50	164
0375	9.5	3/8	4.8	0.189	0.90	0.035	50	164
0500	12.7	1/2	6.4	0.252	0.90	0.035	30	98
0625*	16.0	5/8	8.0	0.315	1.10	0.043	30	98
0750	19.0	3/4	9.5	0.374	1.10	0.043	30	98
0875*	22.2	7/8	11.1	0.437	1.20	0.047	30	98
1000	25.4	1	12.7	0.500	1.20	0.047	30	98
1250*	31.8	1 1/4	15.9	0.626	1.40	0.055	30	98
1500	38.0	1 1/2	19.0	0.748	1.40	0.055	15	49
2000	51.0	2	25.4	1.000	1.70	0.067	15	49

*Sizes 5/8in, 7/8in, 1 1/4in are MOQ items



ORDERING

Select a dimension which will shrink snugly over the component to be covered. If recovery is restricted the resultant wall thickness will be less than specified.

- Select options:
 - Color: Black (BK)
- Please specify the product name, order number and options you require
- *Example:* DERAY®-VT 220 TW, 0375 or 3/8in, black

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.

Viton® is a registered trademark of du Pont de Nemours and Co. Inc. for the raw material



HOSE & PIPE PROTECTION PRODUCTS

PROVIDING THE RIGHT HEAT SHRINK PRODUCT FOR EVERY HOSE AND PIPE APPLICATION.

Our standard DSG-Canusa product range includes heat shrink tubing for protecting pipes and hoses against damage due to stone chippings, abrasion and corrosion in the engine compartment, underbody area, passenger compartment or boot. Pipes for air conditioning, brakes, fuel and oil, gas springs, belt buckles and restraint systems are just some of the typical components whose safe and secure operation is assured, among others, by the application of heat shrink tubing.

DSG-Canusa has over 45 years experience and we are still finding new applications and new challenges to tackle with our customers.

HOSE & PIPE PROTECTION PRODUCTS.....	56-65
DERAY®-HB NS K48 – Thin wall crosslinked polyolefin.....	58
DERAY®-IB CON – Semiconducting adhesive lined shrink tube.....	60
DERAY®-KWS-R – Modified polyolefin with inner grooves.....	62



Thin wall crosslinked polyolefin with specially designed dimensions and functions for A/C pipes.

FEATURES AND BENEFITS

- Good resistance against chemicals
- Good adhesion to the aluminium pipe, even without additional adhesive lining
- No detachment of heat shrink tubing from the aluminium pipes when being bent, particularly in the fold/bend area
- Abrasive protection even under extreme temperatures
- Corrosion protection
- Shrink ratio: > 2:1
- Continuous operating temperature: -55°C to 135°C
- Shrink temperature: 110°C min.

TYPICAL APPLICATIONS

- Protection against mechanical damage, corrosion and diffusion effect of mineral greases and oils



>2:1

SHRINK RATIO

-55°C to 135°C

(-67°F to 275°F)

CONTINUOUS OPERATING TEMPERATURE

MARKETS:

Automotive

STANDARDS:



Thin wall crosslinked polyolefin

DIMENSIONS

ORDER NUMBER	EXPANDED		RECOVERED				DELIVERY UNITS	
	Internal Diameter (min) D		Internal Diameter (max) d		Wall Thickness (nom) W		Spool Lengths	
	MM	IN	MM	IN	MM	IN	M	FT
2410190951	19.0	0.748	6.0	0.236	1.0	0.039	250	820
2410220951	22.0	0.866	6.0	0.236	1.0	0.039	250	820
2410270955	27.0	1.063	12.7	0.500	0.8	0.031	250	820
2410400951	40.0	1.575	14.0	0.551	1.2	0.047	100	328



ORDERING

Select a dimension which will shrink snugly over the component to be covered. If recovery is restricted the resultant wall thickness will be less than specified.

- Select options:
 - Color: Black (BK)
- Please specify the product name, order number and options you require
- *Example:* DERAY®-HB NS K48, 2410190951, black, 250 m

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.



Adhesive lined semi-conductive heat shrinkable tube. Ideal for the electrostatic discharge of fuel lines.

FEATURES AND BENEFITS

- Specially designed for electrostatic discharge of fuel lines
- Continuously printed with “Ω”
- Semi-conductive
- Specific surface resistivity < 1000 k-ohm at 125 V
- Inner adhesive bounds to metals
- Shrink ratio: 3:1
- Continuous operating temperature: -30°C to 105°C
- Shrink temperature: 110°C min.

STANDARDS

- Approved to Ford and GM fuel line specification

TYPICAL APPLICATIONS

- Electrostatic discharge of fuel lines



3:1
SHRINK RATIO

-30°C to 105°C
(-22°F to 221°F)
CONTINUOUS OPERATING TEMPERATURE

MARKETS:
Automotive, Safety Systems,
Industrial

STANDARDS:



Semiconducting adhesive lined shrink tube

DIMENSIONS

ORDER NUMBER	EXPANDED		RECOVERED				DELIVERY UNITS	
	Internal Diameter (min) D		Internal Diameter (max) d		Total Wall Thickness (nom) W		Spool Lengths	
	MM	IN	MM	IN	MM	IN	M	FT
13.5/4.0	13.5	0.531	4.0	0.157	1.20	0.047	100	328
17.5/4.0	17.5	0.689	4.0	0.157	1.20	0.047	100	328



ORDERING

Select a dimension which will shrink snugly over the component to be covered. If recovery is restricted the resultant wall thickness will be less than specified.

- Select options:
 - Color: Black (BK)
- Please specify the product name, order number and options you require
- *Example:* DERAY®-IB CON, 13.5/4.0, black

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.



DERAY®-KWS-R, a specially modified heat shrink tubing based on cross-linked polyolefins, meets all the needs of cooling water hoses perfectly. The inner grooves of this product are an outstanding characteristic.

FEATURES AND BENEFITS

- Flame retardant
- Halogen-free
- Bubble- and wrinkle-free shrink covering of manifold parts with extreme radii
- No deformation of cooling water manifold parts during shrink process
- Very good abrasive resistance
- Fast shrinkage on to part requiring protection
- Shrink ratio: >2:1
- Continuous operating temperature: -55°C to 135°C
- Shrink temperature: 120°C min.

STANDARDS

- TL 52668 Type C
- TL 52361
- JIS D 1201 1973

TYPICAL APPLICATIONS

- Mechanical protection for cooling water hoses and other media carrying pipes



**>2:1
SHRINK RATIO**

**-55°C to 135°C
(-67°F to 275°F)**

CONTINUOUS OPERATING TEMPERATURE

MARKETS:

Automotive

STANDARDS:



Modified polyolefin with inner grooves

DIMENSIONS

ORDER NUMBER	EXPANDED		RECOVERED				DELIVERY UNITS	
	Internal Diameter (min) D		Internal Diameter (max) d		Total Wall Thickness (nom) W		Spool Lengths	
	MM	IN	MM	IN	MM	IN	M	FT
18.0/7.0	18.0	0.709	7.0	0.276	1.10	0.043	200	656
25.4/12.0	25.4	1.000	12.0	0.472	0.75	0.030	200	656
39.0/13.0	39.0	1.535	13.0	0.512	1.15	0.045	150	492
51.0/22.0	51.0	2.008	22.0	0.866	1.00	0.039	100	328
60.0/22.0	60.0	2.362	22.0	0.866	1.00	0.039	100	328
76.0/38.0	76.0	2.992	38.0	1.496	1.50	0.059	30	98



ORDERING

Select a dimension which will shrink snugly over the component to be covered. If recovery is restricted the resultant wall thickness will be less than specified.

- Select options:
 - Color: Black (BK)
- Please specify the product name, order number and options you require
- *Example:* DERAY®-KWS-R, 18/7mm, black

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.



TERMINAL & BATTERY CABLE PRODUCTS

OFFERING DURABILITY, OEM APPROVAL AND UNSURPASSED SEALING ABILITY.

We have designed many products for battery cables that handle the rigorous conditions experienced underhood. Constant temperature cycling, automotive fluid resistance, and water/salt spray all contribute to a difficult application that calls for a robust solution. We meet the challenge with some of the industry's leading solutions, whether the cable is copper or aluminum. We also custom design application-sealing solutions for hard-to-seal battery terminals and situations where serious strain relief is required.

Our battery cable products are well-suited for today's automotive and heavy truck OEM needs, and we're always ready to tackle new challenges through custom products and application-specific needs. We aim to seal, stiffen and shape your battery cables to meet your requirements. Whether it's battery cables, chassis grounding, or bus bars, we're prepared to offer our best for your difficult application.

TERMINAL & BATTERY CABLE PRODUCTS 64-79

DERAY®-ACT – Adhesive lined crosslinked polyolefin	66
DERAY®-HDP – Medium wall crosslinked polyolefin	68
DERAY®-IAKT – Thin wall adhesive lined polyolefin	70
DERAY®-IHKT – Thin wall adhesive lined polyolefin.....	72
DERAY®-MC 225 – Medium wall crosslinked polyethylene.....	74
DERAY®-MGT 5-System – Terminal sealing solution.....	76
DERAY®-RKS – Adhesive lined crosslinked polyolefin.....	78



Adhesive lined heat shrink specifically designed to insulate, seal and protect aluminum-copper flat terminals

FEATURES AND BENEFITS

- Seals and protects against water, moisture and chemicals
- Higher wall thickness prevents shrink tubing from bursting because of sharp metall edges
- Avoids corrosion on aluminum copper connections
- No drain of adhesive
- Shrink ratio: 3.5:1 to 5:1
- Continuous operating temperature: -40°C to 125°C
- Shrink temperature: 145°C min.

STANDARDS

- VW 60360-3
- MBN LV 312-3
- GMW 17136

TYPICAL APPLICATIONS

- Sealing of aluminum-copper flat battery terminals and eyelet terminals



>3.5:1
SHRINK RATIO

-40°C to 125°C
(-40°F TO 257°F)
CONTINUOUS OPERATING TEMPERATURE

MARKETS:
Automotive, Industrial

STANDARDS:



Adhesive lined crosslinked polyolefin

DIMENSIONS

ORDER NUMBER	EXPANDED		RECOVERED				DELIVERY UNITS	
	Internal Diameter (min) D		Internal Diameter (max) d		Total Wall Thickness (nom) W		Cut Lengths	
	MM	IN	MM	IN	MM	IN	MM	IN
DERAY®-ACT 1	14.0	0.551	2.5	0.098	2.7	0.106	50.0	1.97
DERAY®-ACT 2	23.0	0.906	4.5	0.177	2.8	0.110	67.0	2.64
DERAY®-ACT 2A	30.0	1.181	6.0	0.236	2.8	0.110	80.0	3.15
DERAY®-ACT 2B	31.0	1.220	7.0	0.276	3.3	0.130	80.0	3.15
DERAY®-ACT 3	35.0	1.378	10.0	0.394	3.1	0.122	90.0	3.45



ORDERING

Select a dimension which will shrink snugly over the component to be covered. If recovery is restricted the resultant wall thickness will be less than specified.

- Select options:
 - Color: Black (BK), Clear (CL)
- Please specify the product name, order number and options you require
- Example: DERAY®-ACT 3, black

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.



Halogen free, high density heat shrink tubing specially designed to meet the form stable demands in automotive battery cable and ground strap areas, highly abrasion resistant.

FEATURES AND BENEFITS

- Rigid
- Halogen free
- Form stable
- Highly abrasion resistant
- Shrink ratio: >2:1
- Continuous operating temperature: -40°C to 135°C
- Shrink temperature: 120°C min.

STANDARDS

- VW 60360-3
- GS 95008-3-3

TYPICAL APPLICATIONS

- Insulation of battery cables and ground straps
- Protection against mechanical damage and corrosion in industrial applications, e.g. tools
- Strain relief and abrasion protection



**>2:1
SHRINK RATIO**

**-40°C to 135°C
(-40°F to 275°F)
CONTINUOUS OPERATING
TEMPERATURE**

MARKETS:
Automotive, Industrial

STANDARDS:



Medium wall crosslinked polyolefin

DIMENSIONS

ORDER NUMBER	EXPANDED		RECOVERED				DELIVERY UNITS	
	Internal Diameter (min) D		Internal Diameter (max) d		Total Wall Thickness (nom) W		Spool Lengths	
	MM	IN	MM	IN	MM	IN	M	FT
15.0/6.5	15.0	0.591	6.5	0.256	1.25	0.049	250	820
20.0/6.5	20.0	0.787	6.5	0.256	2.00	0.079	100	328



ORDERING

- Select a dimension which will shrink snugly over the component to be covered. If recovery is restricted the resultant wall thickness will be less than specified.
- Select options:
 - Color: Black (BK)
- Please specify the product name, order number and options you require
- *Example:* DERAY®-HDP, 15.0/6.5, black

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.



Adhesive lined heat shrink tubing ideal for effective moisture-resistant insulation.

FEATURES AND BENEFITS

- Flexible
- Adhesive bonds to plastics, rubber, steel polyethylene and other materials
- Shrink ratio: 3:1 & 4:1
- Continuous operating temperature of outer jacket: -55°C to 110°C
- Shrink temperature: 95°C min.

STANDARDS

- Industrial, electronic and automotive OEM approvals

TYPICAL APPLICATIONS

- Environmental sealing and strain relief of connectors and terminals
- Moisture sealing and electrical insulation of simple in-line splices
- Abrasion resistance for tubes and pipes
- Repair of damaged wire harnesses



3:1 & 4:1
SHRINK RATIO

-55°C to 110°C
(-67°F to 230°F)
CONTINUOUS OPERATING TEMPERATURE

MARKETS:

Automotive, Industrial

STANDARDS:



Thin wall adhesive lined crosslinked polyolefin

DIMENSIONS: SHRINK RATIO 3:1

ORDER NUMBER	EXPANDED		RECOVERED				DELIVERY UNITS		
	Internal Diameter (min) D		Internal Diameter (max) d		Total Wall Thickness (nom) W		Spool Lengths		Lengths
	MM	IN	MM	IN	MM	IN	MM	IN	1.22m / 48in
3.0/1.0	3.0	0.118	1.0	0.039	1.00	0.039	300	984	25
4.5/1.5	4.5	0.177	1.5	0.059	1.10	0.043	300	984	25
6.0/2.0	6.0	0.236	2.0	0.079	1.20	0.047	300	984	10
9.0/3.0	9.0	0.354	3.0	0.118	1.40	0.055	150	492	10
12.0/4.0	12.0	0.472	4.0	0.157	1.70	0.067	100	328	10
19.0/6.0	19.0	0.748	6.0	0.236	2.10	0.083	50	164	10
24.0/8.0	24.0	0.945	8.0	0.315	2.40	0.094	50	164	10
40.0/13.0	40.0	1.575	13.0	0.512	2.40	0.094	30	98	10

DIMENSIONS: SHRINK RATIO 4:1

ORDER NUMBER	EXPANDED		RECOVERED				DELIVERY UNITS		
	Internal Diameter (min) D		Internal Diameter (max) d		Total Wall Thickness (nom) W		Spool Lengths		Lengths
	MM	IN	MM	IN	MM	IN	MM	IN	1.22m / 48in
4.0/1.0	4.0	0.157	1.0	0.039	1.00	0.039	300	984	25
8.0/2.0	8.0	0.315	2.0	0.079	1.20	0.047	150	492	10
12.0/3.0	12.0	0.472	3.0	0.118	1.40	0.055	100	328	10
16.0/4.0*	16.0	0.630	4.0	0.157	1.70	0.067	50	164	10
24.0/6.0	24.0	0.945	6.0	0.236	2.10	0.083	50	164	10
32.0/8.0	32.0	1.260	8.0	0.315	2.40	0.094	50	164	10
52.0/13.0*	52.0	2.047	13.0	0.512	2.40	0.094	30	98	10

*IAKT 4:1 sizes 16.0/4.0 & 52.0/13.0 clear have different delivery units



ORDERING

- Select a dimension which will shrink snugly over the component to be covered. If recovery is restricted the resultant wall thickness will be less than specified.
- Select options:
 - Color: Black (BK), Clear (CL)
- Please specify the product name, order number and options you require
- Example: DERAY®-IAKT 3:1, 40.0/13.0, black

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.



Flexible heat shrink tubing with a temperature resistant polyamide adhesive inner lining. Ideal for protecting components in a wide range of electrical and mechanical applications where adhesion to connector and metal substrates is critical.

FEATURES AND BENEFITS

- High shrink ratio allows for coverage of irregularly shaped connectors and components
- Flame retardant
- Specially designed polyamide adhesive protects components at higher temperatures
- Superior sealing against water and other contaminants
- Inner adhesive bonds to plastics, rubbers and metals
- Shrink ratio: 4:1
- Continuous operating temperature: -55°C to 125°C
- Shrink temperature: 100°C min.

STANDARDS

- SAE-AMS-DTL-23053/4 Class 3
- Approved to all major Automotive OEM specifications

TYPICAL APPLICATIONS

- Retrofit protection of connectors
- Repair of damaged wire harnesses
- Moisture sealing and strain relief at connectors and terminals



4:1
SHRINK RATIO

-55°C to 125°C
(-67°F to 257°F)

CONTINUOUS OPERATING TEMPERATURE

MARKETS:

Automotive, Industrial

STANDARDS:



Thin wall adhesive lined crosslinked polyolefin

DIMENSIONS

ORDER NUMBER	EXPANDED		RECOVERED				DELIVERY UNITS		
	Internal Diameter (min) D		Internal Diameter (max) d		Total Wall Thickness (nom) W		Spool Lengths		Lengths
	MM	IN	MM	IN	MM	IN	MM	IN	1.22m / 48in
0157	4.0	0.157	1.0	0.039	1.00	0.039	300	984	25
0315	8.0	0.315	2.0	0.079	1.20	0.047	150	492	10
0472	12.0	0.472	3.0	0.118	1.40	0.055	100	328	10
0630	16.0	0.630	4.0	0.157	1.70	0.067	50	164	10
0945	24.0	0.945	6.0	0.236	2.10	0.083	50	164	10
1260	32.0	1.260	8.0	0.315	2.40	0.094	50	164	10
2047	52.0	2.047	13.0	0.512	2.40	0.094	30	98	10



ORDERING

- Select a dimension which will shrink snugly over the component to be covered. If recovery is restricted the resultant wall thickness will be less than specified.
- Select options:
 - Color: Black (BK)
- Please specify the product name, order number and options you require
- *Example:* DERAY®-IHKT, 0630 or 16.0/4.0, black

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.



Medium wall heat shrinkable tubing suitable for a variety of mechanical, electrical and thermal applications.

FEATURES AND BENEFITS

- High resistance to impact and abrasion
- Shrink ratio: 3:1
- Continuous operating temperature: -40°C to 135°C
- Shrink temperature: 120°C min.

STANDARDS

- VG 95343 Part 5 Type G
- GMW 17136
- GS 95008-3-3

TYPICAL APPLICATIONS

- Shaping on battery cables
- Bundling



3:1
SHRINK RATIO

-40°C to 135°C
(-40°F to 275°F)

CONTINUOUS OPERATING TEMPERATURE

MARKETS:

Automotive, Electrical Utility, Power Distribution, Industrial, Commercial Construction Projects, Aerospace, Defense, Marine

STANDARDS:



Medium wall heat shrink crosslinked modified polyethylene

DIMENSIONS

ORDER NUMBER	EXPANDED		RECOVERED				DELIVERY UNITS
	Internal Diameter (min) D		Internal Diameter (max) d		Total Wall Thickness (nom) W		Lengths
	MM	IN	MM	IN	MM	IN	1.22 M / 48 IN
12/3	12.0	0.472	3.0	0.118	1.00	0.039	10
19/5	19.0	0.748	5.0	0.197	2.00	0.079	10
28/8	28.0	1.102	8.0	0.315	2.50	0.098	10
38/12	38.0	1.496	12.0	0.472	2.50	0.098	10
50/16	50.0	1.969	16.0	0.630	2.50	0.098	10
65/19	65.0	2.559	19.0	0.748	2.50	0.098	5
75/22	75.0	2.953	22.0	0.866	3.00	0.118	5
85/25	85.0	3.346	25.0	0.984	3.00	0.118	5
95/25	95.0	3.740	25.0	0.984	3.00	0.118	5



ORDERING

Select a dimension which will shrink snugly over the component to be covered. If recovery is restricted the resultant wall thickness will be less than specified.

- Select options:
 - Color: Black (BK)
- Please specify the product name, order number and options you require
- *Example:* DERAY®-MC 225, 50/16, black

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.



Adhesive lined heat shrink system specifically designed to insulate, seal and protect terminals in automotive assemblies.

FEATURES AND BENEFITS

- High shrink ratio to fit varying terminal sizes
- Seals and protects against water, moisture and chemicals
- Adhesive bonds readily to PVC, XLPE and PP-EPDM cable jackets
- Shrinks rapidly for quick installation
- Shrink ratio: 6:1
- Continuous operating temperature: -40°C to 125°C
- Shrink temperature: 120°C min.
- Combine with DERAY®-SpliceMelt if additional adhesive is needed

STANDARDS

- FCA Standard
- Fiat Norm 91309/1

TYPICAL APPLICATIONS

- Ground terminals
- Eyelet terminals



6:1

SHRINK RATIO

-40°C to 125°C
(-40°F TO 257°F)

CONTINUOUS OPERATING TEMPERATURE

MARKETS:

Automotive

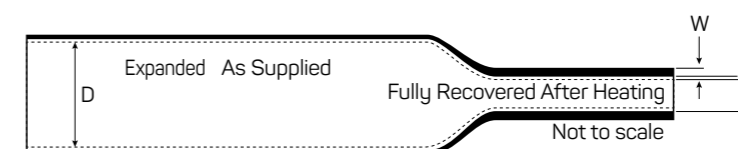
STANDARDS:



Terminal sealing solution

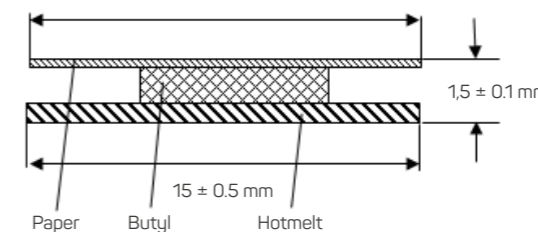
DIMENSIONS: DERAY®-MGT 5

ORDER NUMBER	EXPANDED		ORECOVERED				DELIVERY UNITS	
	Internal Diameter (min) D		Internal Diameter (max) d		Total Wall Thickness (nom) W		Lengths	
	MM	IN	MM	IN	MM	IN	MM	IN
DERAY®-MGT 5	16.0	0.629	2.5	0.098	2.35	0.093	45	1.77
DERAY®-MGT 5	16.0	0.629	2.5	0.098	2.35	0.093	55	2.17



DIMENSIONS: DERAY®-SPLICEMELTBAND

ORDER NUMBER	WIDTH		THICKNESS		DELIVERY UNITS	
	MM	IN	MM	IN	MM	IN
DERAY®-SpliceMeltband	10.0	0.394	1.5	0.059	30	1.181



ORDERING

Select a dimension which will shrink snugly over the component to be covered. If recovery is restricted the resultant wall thickness will be less than specified.

- Please specify the product name, order number and options you require
- Example: DERAY®-MGT 5-System, 45mm

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.



Adhesive lined heat shrink specifically designed to insulate, seal and protect anti-twist safe guards and tubular cable lugs.

FEATURES AND BENEFITS

- Seals and protect against water, moisture and chemicals
- Thin wall thickness to cover the special application range
- No milking of the objects due to modified adhesive
- Shrink ratio: >3:1
- Continuous operating temperature: -40°C to 125°C
- Shrink temperature: 125°C min.

STANDARDS

- VW 60360-3

TYPICAL APPLICATIONS

- Anti-twist safe guards
- Tubular cable lugs



**>3:1
SHRINK RATIO**

**-40°C to 125°C
(-40°F to 257°F)
CONTINUOUS OPERATING
TEMPERATURE**

MARKETS:
Automotive, Industrial

STANDARDS:



Adhesive lined crosslinked polyolefin

DIMENSIONS

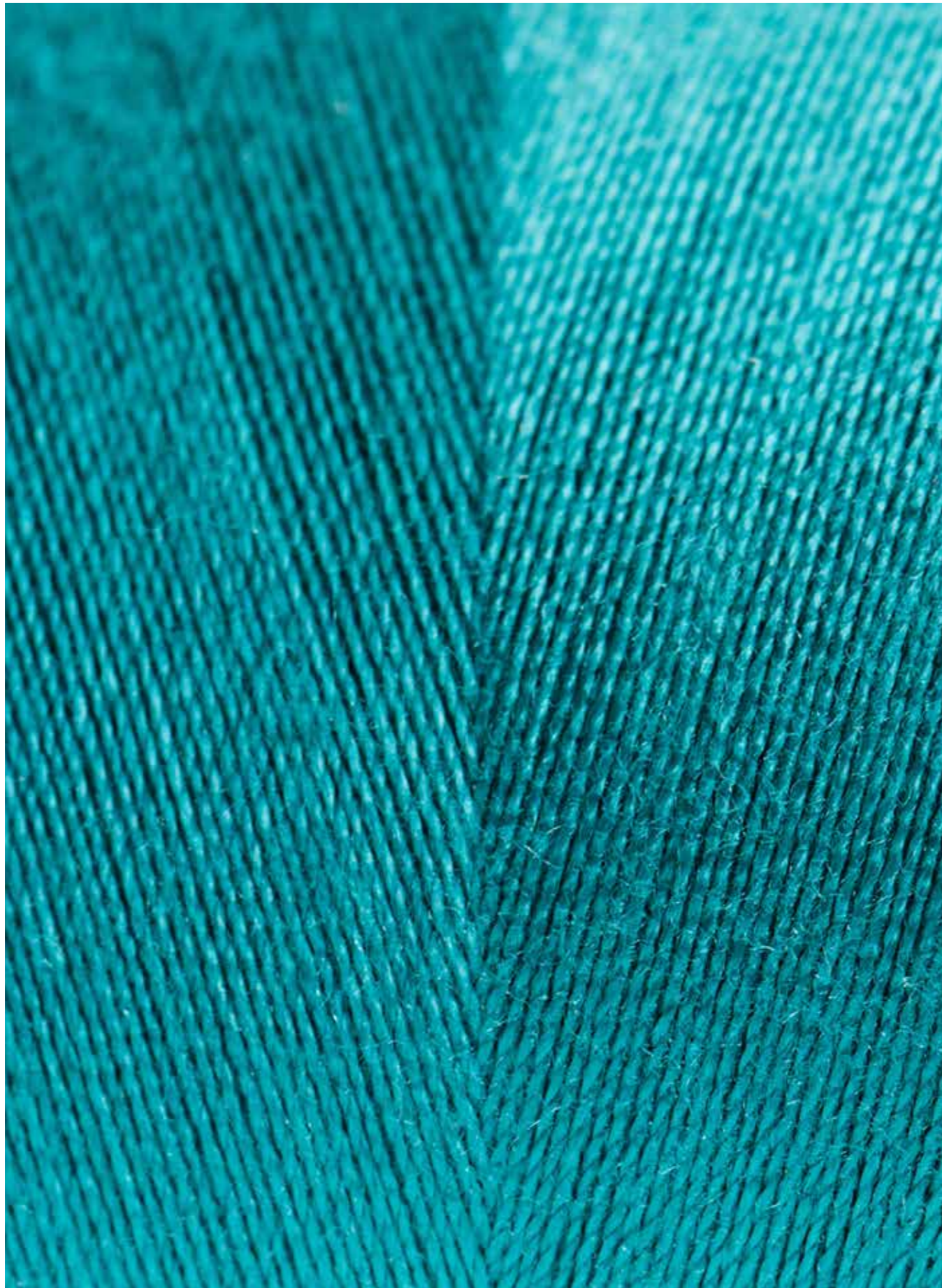
ORDER NUMBER	EXPANDED		RECOVERED				DELIVERY UNITS	
	Internal Diameter (min) D		Internal Diameter (max) d		Total Wall Thickness (nom) W		Cut Lengths	
	MM	IN	MM	IN	MM	IN	MM	IN
0	5.7	0.224	1.5	0.059	1.45	0.057	35	1.37
1	6.3	0.248	2.0	0.078	1.05	0.041	35	1.37
2	8.3	0.326	2.0	0.078	1.05	0.041	35	1.37
3	10.8	0.425	3.1	0.122	1.60	0.062	35	1.37
4	18.0	0.708	4.2	0.165	2.0	0.078	40	1.57



ORDERING

- Select a dimension which will shrink snugly over the component to be covered. If recovery is restricted the resultant wall thickness will be less than specified.
- Select options:
 - Color: Clear (CL)
- Please specify the product name, order number and options you require
- *Example:* DERAY®-RKS 1, clear

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.

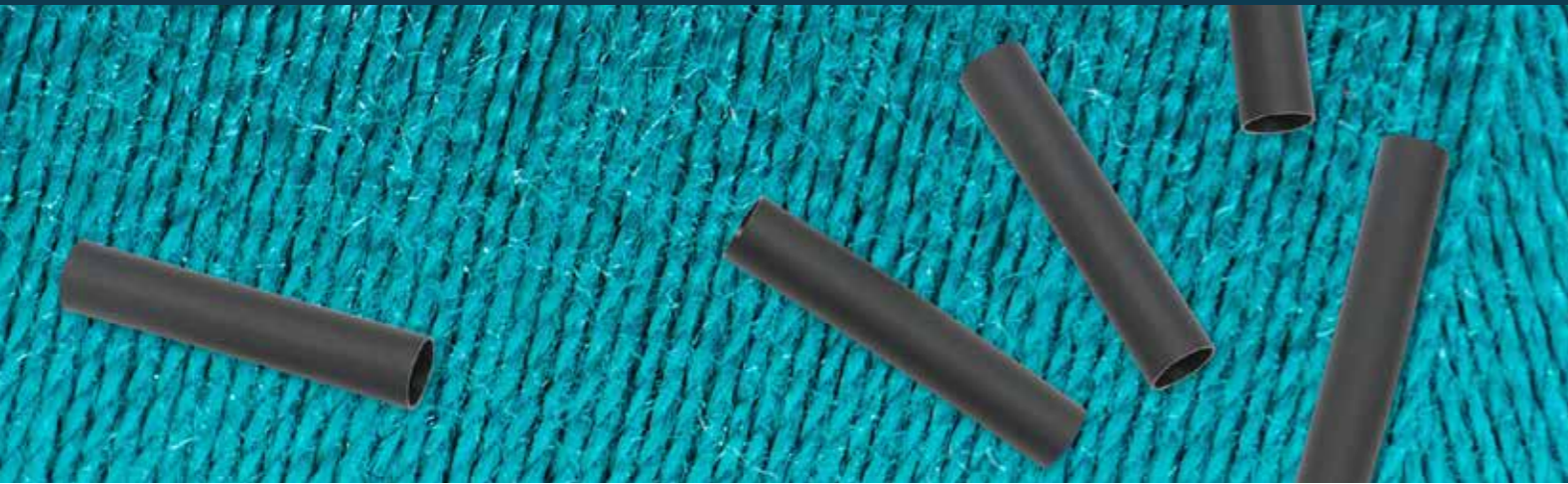


SEATBELT PRODUCTS

MECHANICAL PROTECTION AND COLOR COORDINATION FOR SEAT BELT LOCKS AND CAR AERIALS.

Outstandingly good abrasive resistance and colour coordination to suit the customer's needs are the key features of these heat shrinking tubes.

SEATBELT PRODUCTS	80-83
DERAY®-IB NS – Thin wall crosslinked polyolefin	82



Thin wall crosslinked polyolefin with specially designed dimensions and functions for seatbelt locks and car aerals.

FEATURES AND BENEFITS

- Quick shrinking
- Very flexible
- Good abrasive resistance
- Matt or glossy finish options
- Can be colour coordinated to match the application's design
- Continuous operating temperature: -55°C to 135°C
- Shrink temperature: 95°C min.

STANDARDS

- Approved to all major Automotive TIER 1 specifications

TYPICAL APPLICATIONS

- Seatbelt locks and car aerals



>2:1
SHRINK RATIO

-55°C to 135°C
(-67°F to 275°F)
CONTINUOUS OPERATING TEMPERATURE

MARKETS:

Automotive

STANDARDS:



Thin wall crosslinked polyolefin

DIMENSIONS

ORDER NUMBER	EXPANDED		RECOVERED				DELIVERY UNITS
	Internal Diameter (min) D		Internal Diameter (max) d		Total Wall Thickness (nom) W		Cut Lengths
	MM	IN	MM	IN	MM	IN	
IB NS 24	24	0.945	6.8	0.268	1.2	0.047	on request
IB NS 27	27	1.062	9.5	0.374	0.8	0.031	on request
IB NS 30	30	1.181	9.5	0.374	0.8	0.031	on request

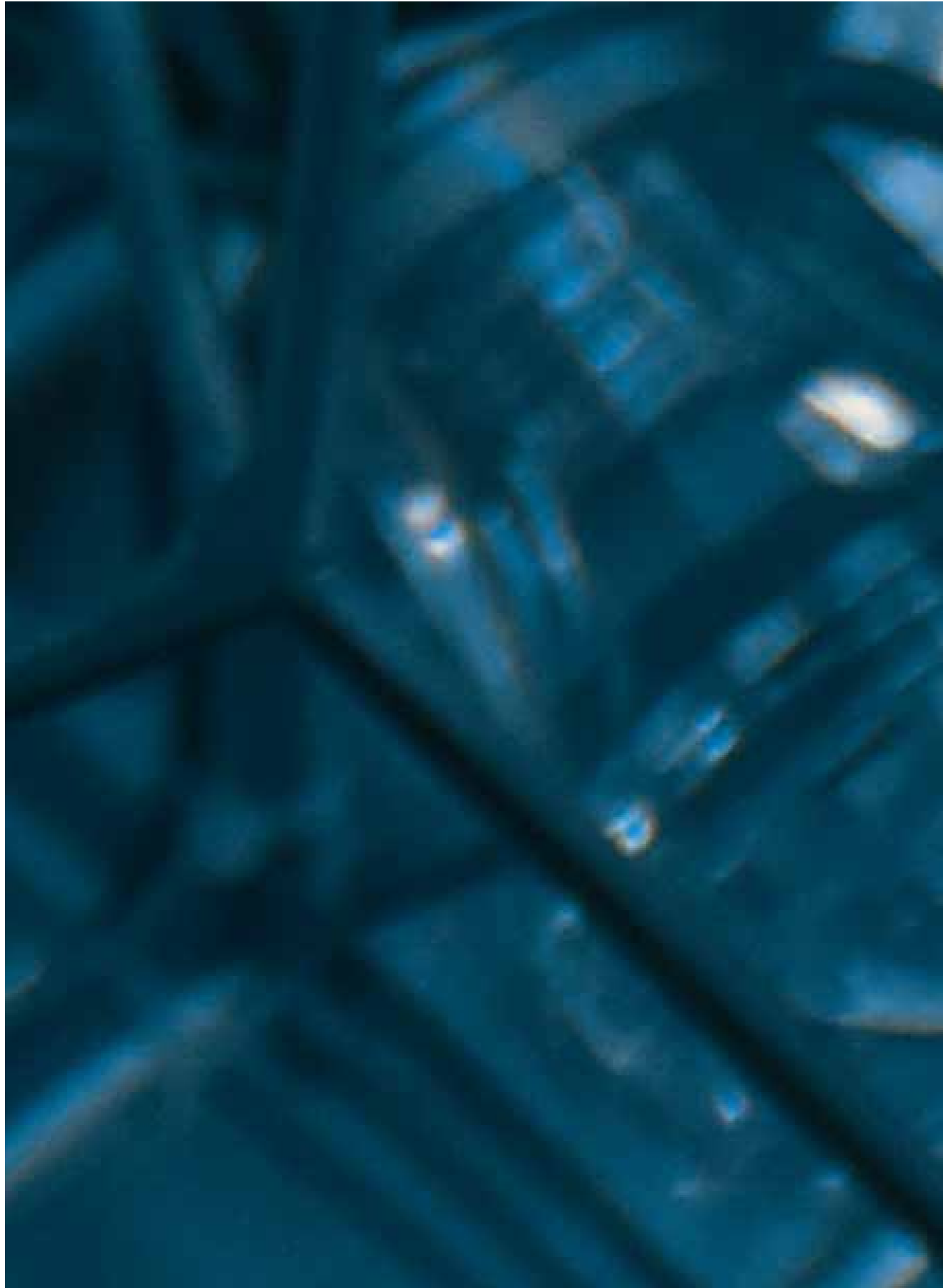


ORDERING

Select a dimension which will shrink snugly over the component to be covered. If recovery is restricted the resultant wall thickness will be less than specified.

- Select options:
 - Color: Black (BK), other colours on request
- Please specify the product name, order number and options you require
- *Example:* DERAY®-IB NS 24-6.8, black

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.



INSULATING CAPS

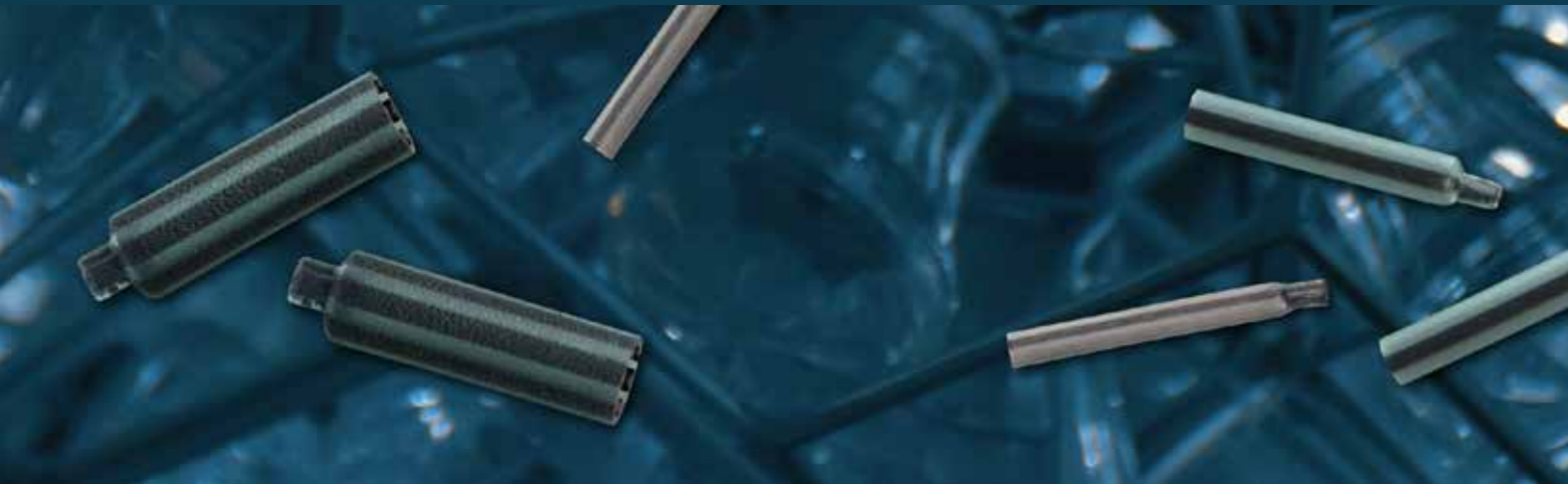
PROVIDING EASY AND LOW-COST INSULATION OF END SPLICES.

Non-shrinking insulating caps allow easy and low-cost insulation of crimped and ultrasonically welded end splices. The cap size is selected to suit the diameter of the end splice to be insulated. The length of the cap is selected such that the stripped part of the end splice is given sufficient cover.

No tools or processing appliances are required when installing DSG-Canusa insulating caps.

INSULATING CAPS..... 84-91

DERAY®-BIOK – Polyolefin insulation cap.....	86
DERAY®-HIOK – Soft PVC insulation cap.....	88
DERAY®-IOK – Soft PVC insulation cap	90



Non-shrinkable insulation cap with integral butyl liner for insulation of end splices in wire harnesses and electronic components.

FEATURES AND BENEFITS

- Halogen-free
- Easy and low-cost installation without processing appliances
- Good adhesion to the object due to the interior lining with butyl rubber strips
- Good resistance to aggressive media and fuel
- Good adhesion to various types of insulation material such as PVC, PE, PP-EPDM
- Translucent material allows optimum positioning
- Continuous operating temperature: -35°C to 85°C

STANDARDS

- Approved to all major Automotive OEM specifications

TYPICAL APPLICATIONS

- Electrical insulation of end splices
- Mechanical protection of end splices



HALOGEN FREE

EASY AND LOW-COST INSTALLATION

-35°C to 85°C
 (-31°F to 185°F)
CONTINUOUS OPERATING TEMPERATURE

MARKETS:

Automotive, Industrial

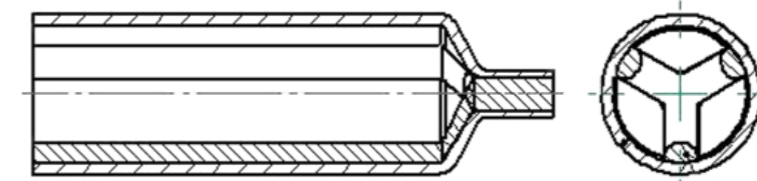
STANDARDS:



Polyolefin insulation cap

DIMENSIONS

ORDER NUMBER	DIMENSIONS				DELIVERY UNITS		
	Internal Diameter (min) D		Cut Length		Cross Section Range	Colour	Pieces
	MM	IN	MM	IN			
9203042050	3.0	0.118	42.0	1.65	1.4 -2.5	clear	12,000
9203542110	3.5	0.138	42.0	1.65	2.5-2.9	yellow-clear	10,000
9204042550	4.0	0.157	42.0	1.65	2.9-3.6	blue-clear	8,000
9205042660	5.0	0.197	42.0	1.65	3.6-4.1	green-clear	6,000
9205542110	5.5	0.217	42.0	1.65	4.1-4.5	yellow-clear	5,000
9206042550	6.0	0.236	42.0	1.65	4.1-5.3	blue-clear	4,000
9207042050	7.0	0.276	42.0	1.65	5.3-6.5	clear	4,000
9209545660	9.5	0.374	45.0	1.77	6.5-7.5	green-clear	2,000
9212045050	12.0	0.472	45.0	1.77	on demand	clear	1,000



ORDERING

- Select options:
 - Color: Black-Clear (BK), Grey-Clear (GY), Yellow-Clear (YL), Green-Clear (GR), Blue-Clear (BL), White-Clear (WT), Clear (CL)
- Please specify the product name, order number and options you require
- *Example:* DERAY®-BIOK, 9205542110 or 5.5x42mm, yellow-clear

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.



Non-shrinkable insulation cap made of soft PVC with indentation cut for electrical insulation.

FEATURES AND BENEFITS

- Good resistance to aggressive media and fuel
- Good adhesion to various types of splices thanks to the specifically designed indentation cut
- No detachment under operating temperatures
- Translucent material allows optimum positioning
- Continuous operating temperature: -35°C to 85°C

STANDARDS

- Approved to all major Automotive OEM specifications

TYPICAL APPLICATIONS

- Insulation of end crimped splices
- Mechanical protection of end splices



INDENTATION CUT FOR ELECTRICAL INSULATION

-35°C to 85°C
(-31°F to 185°F)

CONTINUOUS OPERATING TEMPERATURE

MARKETS:

Automotive, Industrial

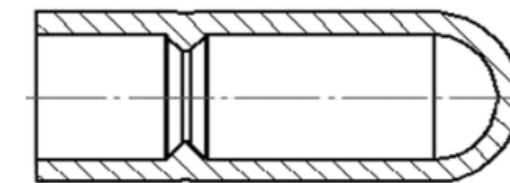
STANDARDS:



Soft PVC insulation cap

DIMENSIONS

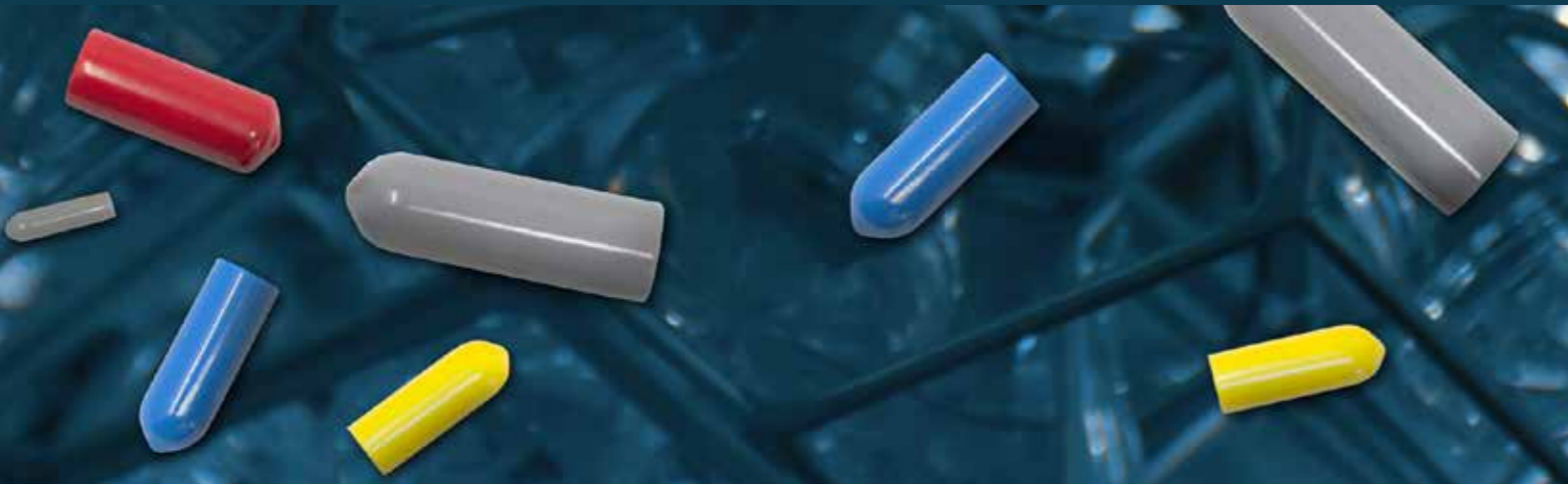
ORDER NUMBER	DIMENSION				DELIVERY UNITS			
	Internal Diameter (min) D		Total Wall Thickness (nom) W		Cut Lengths		Color	Pcs / Cardboard
	MM	IN	MM	IN	MM	IN		(Packed in Bags)
9973035770	3.0	0.118	1.00	0.039	35.0	1.38	grey-clear	18,000
9973735120	3.7	0.146	1.00	0.039	35.0	1.38	yellow-clear	13,500
9974535620	4.5	0.177	1.00	0.039	35.0	1.38	green-clear	11,250
9975035520	5.0	0.197	1.00	0.039	35.0	1.38	blue-clear	9,000
9976035970	6.0	0.236	1.00	0.039	35.0	1.38	black-clear	6,750
9976535620	6.5	0.256	1.00	0.039	35.0	1.38	green-clear	6,750
9977535120	7.5	0.295	1.25	0.049	35.0	1.38	yellow-clear	5,400
9979535890	9.5	0.374	2.00	0.079	35.0	1.38	clear	2,400
9961135890	11.0	0.433	2.00	0.079	35.0	1.38	white-clear	2,000



ORDERING

- Select options:
 - Color: Black-Clear (BK), Grey-Clear (GY), Yellow-Clear (YL), Green-Clear (GR), Blue-Clear (BL), White-Clear (WT), Clear (CL)
- Please specify the product name, order number and options you require
- *Example:* DERAY®-HIOK, 9974535620 or 4.5x35mm, grey-clear

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.



Non-shrinkable insulation cap made of soft PVC for reliable electrical protection.

FEATURES AND BENEFITS

- Ensures 100 % electrical insulation
- Good resistance to aggressive media and fuel
- Easy and low-cost installation without processing appliances
- Various colors available on request
- Continuous operating temperature: -35°C to 85°C

STANDARDS

- Approved to all major Automotive OEM specifications

TYPICAL APPLICATIONS

- Insulation of ultrasonically welded end and crimp splices
- Mechanical protection



EASY AND LOW-COST INSTALLATION

-35°C to 85°C

(-31°F to 185°F)

CONTINUOUS OPERATING TEMPERATURE

MARKETS:

Automotive, Industrial

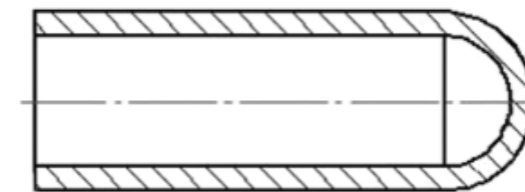
STANDARDS:



Soft PVC insulation cap

DIMENSIONS

ORDER NUMBER	DIMENSION				DELIVERY UNITS			
	Internal Diameter (min) D		Total Wall Thickness (nom) W		Cut Lengths		Color	Pcs / Cardboard
	MM	IN	MM	IN	MM	IN		(Packed in Bags)
9915300700	3.0	0.118	0.75	0.030	15.0	0.59	grey	10,000
9915400100	4.0	0.157	1.00	0.039	20.0	0.79	yellow	5,000
9915500500	5.0	0.197	1.00	0.039	20.0	0.79	blue	5,000
9915600950	6.0	0.236	1.00	0.039	25.0	0.98	black	4,000
9915750100	7.5	0.295	1.25	0.049	25.0	0.98	yellow	2,000
9915950900	9.5	0.374	1.25	0.049	35.0	1.38	white	2,000
9911200300	12.0	0.472	1.25	0.049	35.0	1.38	red	2,000
9911450700	14.0	0.551	2.00	0.079	50.0	1.97	grey	1,000
9911610700	16.0	0.630	1.50	0.059	50.0	1.97	grey	500



ORDERING

- Select options:
 - Color: Black (BK), Red (RD), White (WT), Clear (CL), Blue (BL), Yellow (YL), Green (GR), Grey (GY)
- Please specify the product name, order number and options you require
- *Example:* DERAY®-IOK, 9915500500 or 5.0x20mm, blue

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.



SINGLE WALL PRODUCTS

SERVING A VARIETY OF APPLICATIONS IN THE AUTOMOTIVE MARKET.

Our single wall heat shrink tubing offers insulation of electrical components, protects against mechanical damage and abrasion and is available in a wide range of colours and sizes.

SINGLE WALL PRODUCTS.....92-99

DERAY®-H - Thin wall crosslinked polyolefin.....	94
DERAY®-I - Thin wall crosslinked polyolefin.....	96
DERAY®-I 3000 - Thin wall crosslinked polyolefin.....	98



Multi-purpose, flame retardant, flexible heat shrink tubing.

FEATURES AND BENEFITS

- Flame retardant (colors only)
- Flexible
- Suitable for various applications
- Good resistance to common fluids and solvents
- High dielectric strength
- Shrink ratio: 2:1
- Continuous operating temperature: -55°C to 135°C
- Shrink temperature: 110°C min.

STANDARDS

- UL 224, 125°C (colors only)
- CSA (colors only)
- Approved to all major Automotive OEM specifications

TYPICAL APPLICATIONS

- Abrasion and mechanical protection
- Cable insulation, marking and bundling of electrical or mechanical components
- Strain relief
- Corrosion protection



**2:1
SHRINK RATIO**

**-55°C to 135°C
(-67°F to 275°F)
CONTINUOUS OPERATING
TEMPERATURE**

MARKETS:

Automotive, Industrial

STANDARDS:



Thin wall crosslinked polyolefin

DIMENSIONS

ORDER NUMBER	EXPANDED		RECOVERED				DELIVERY UNITS				
	Internal Diameter (min) D		Internal Diameter (max) d		Total Wall Thickness (nom) W		Spool		Mini-Spool*		Lengths
	MM	IN	MM	IN	MM	IN	M	FT	M	FT	1.22 M / 48 IN
0047	1.2	3/64	0.6	0.024	0.40	0.016	300	984	150	492	25
0063	1.6	1/16	0.8	0.031	0.40	0.016	300	984	150	492	25
0094	2.4	3/32	1.2	0.047	0.50	0.020	300	984	150	492	25
0125	3.2	1/8	1.6	0.063	0.50	0.020	300	984	150	492	25
0187	4.8	3/16	2.4	0.094	0.50	0.020	300	984	75	246	25
0250	6.4	1/4	3.2	0.126	0.60	0.024	300	984	75	246	25
0375	9.5	3/8	4.8	0.189	0.60	0.024	150	492	75	246	25
0500	12.7	1/2	6.4	0.252	0.60	0.024	100	328	50	164	25
0625	16.0	5/8	8.0	0.315	0.60	0.024	100	328	50	164	10
0750	19.0	3/4	9.5	0.374	0.80	0.031	50	164	30	98	10
1000	25.4	1	12.7	0.500	0.90	0.035	50	164	30	98	10
1250	31.8	1 1/4	15.9	0.626	0.90	0.035	50	164	30	98	-
1500	38.0	1 1/2	19.0	0.748	1.00	0.039	50	164	30	98	-
2000	51.0	2	25.4	1.000	1.10	0.043	50	164	30	98	-
3000	76.0	3	38.0	1.496	1.30	0.051	25	82	15	49	-
4000	101.6	4	50.8	2.000	1.40	0.055	25	82	15	49	-

Clear items not UL or CSA listed.

*Colored items only available on mini-spools



ORDERING

Select a dimension which will shrink snugly over the component to be covered. If recovery is restricted the resultant wall thickness will be less than specified.

- Select options:
 - Color: Black (BK), Red (RD), White (WT), Clear (CL), Blue (BL), Yellow (YL), Green (GR), Brown (BN), Grey (GY)
- Please specify the product name, order number and options you require
- Example: DERAY®-H, 0250 or 1/4", black

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.



Universal heat shrink tubing with excellent physical and mechanical properties.

FEATURES AND BENEFITS

- Flame retardant (colors only)
- Flexible
- Very good resistant to common fluids and solvents
- Excellent physical and electrical performance
- Shrink ratio: 2:1
- Continuous operating temperature: -55°C to 135°C
- Shrink temperature: 90°C min.

STANDARDS

- UL 224, 125°C (colors only)
- CSA (colors only)
- SAE-AMS-DTL-23053/5, Class 1 + 2
- DEF STAN 59-97 Type 2b, BS G198 Part 3 Type 11B
- VG95343 Part 5 Type A/B
- Approved to all major Automotive OEM specifications

TYPICAL APPLICATIONS

- Electrical insulation of wire splices and terminals
- Protection against chemical strength
- Strain relief of wire terminations
- Cable marking and bundling of electrical or mechanical components
- Secures components from abrasion and fluids



2:1
SHRINK RATIO

-55°C to 135°C
(-67°F to 275°F)
CONTINUOUS OPERATING TEMPERATURE

MARKETS:

Automotive, Aerospace, Defense, Civil Construction Projects, Industrial OEM,

STANDARDS:



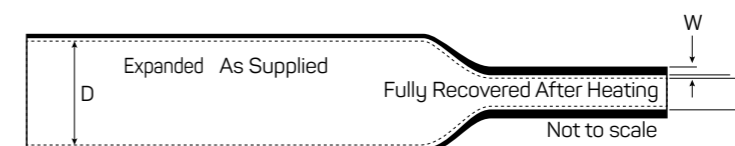
Thin wall crosslinked polyolefin

DIMENSIONS

ORDER NUMBER	EXPANDED		RECOVERED				DELIVERY UNITS				
	Internal Diameter (min) D		Internal Diameter (max) d		Total Wall Thickness (nom) W		Spool		Mini-Spool*		Lengths
	MM	IN	MM	IN	MM	IN	M	FT	M	FT	1.22 M / 48 IN
0047	1.2	3/64	0.6	0.024	0.40	0.016	300	984	150	492	25
0063	1.6	1/16	0.8	0.031	0.40	0.016	300	984	150	492	25
0094	2.4	3/32	1.2	0.047	0.50	0.020	300	984	150	492	25
0125	3.2	1/8	1.6	0.063	0.50	0.020	300	984	150	492	25
0187	4.8	3/16	2.4	0.094	0.50	0.020	300	984	75	246	25
0250	6.4	1/4	3.2	0.126	0.60	0.024	300	984	75	246	10
0375	9.5	3/8	4.8	0.189	0.60	0.024	150	492	75	246	10
0500	12.7	1/2	6.4	0.252	0.60	0.024	100	328	50	164	10
0625	16.0	5/8	8.0	0.315	0.60	0.024	100	328	50	164	10
0750	19.0	3/4	9.5	0.374	0.80	0.031	50	164	30	98	10
1000	25.4	1	12.7	0.500	0.90	0.035	50	164	30	98	10
1250	31.8	1 1/4	15.9	0.626	0.90	0.035	50	164	30	98	-
1500	38.0	1 1/2	19.0	0.748	1.00	0.039	50	164	30	98	-
2000	51.0	2	25.4	1.000	1.10	0.043	50	164	30	98	-
3000	76.0	3	38.0	1.496	1.30	0.051	25	82	15	49	-
4000	101.6	4	50.8	2.000	1.40	0.055	25	82	15	49	-

Clear items not UL or CSA listed.

*Colored items only available on mini-spools



ORDERING

Select a dimension which will shrink snugly over the component to be covered. If recovery is restricted the resultant wall thickness will be less than specified.

- Select options:
 - Color: Black (BK), Red (RD), White (WT), Clear (CL), Blue (BL), Yellow (YL), Green (GR), Brown (BN), Grey (GY)
- Please specify the product name, order number and options you require
- Example: DERAY®-I, 0375 or 3/8", black

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.



High shrink ratio, multiple specifications flexible heat shrink tubing with excellent physical and mechanical properties.



FEATURES AND BENEFITS

- Flame retardant (colors only)
- Flexible
- High shrink ratio
- Resistant to common fluids and solvents
- Designed to RAL2003 orange color
- Shrink Ratio: 3:1
- Continuous operating temperature: -55°C to 135°C
- Shrink temperature: 90°C min.

STANDARDS

- UL 224, 125°C (colors only)
- SAE-AMS-DTL-23053/5, Class 1 + 2
- DEF STAN 59-97 Type 2b, BS G198 Part 3 Type 11B
- VG95343 Part 5 Type A/B
- Approved to all major Automotive OEM specifications

TYPICAL APPLICATIONS

- Electrical insulation of in-line splices
- Strain relief of terminals
- Color coding of electronic components
- Insulation and protection of objects with large diameter variations

3:1
SHRINK RATIO

-55°C to 135°C
(-67°F to 275°F)

CONTINUOUS OPERATING TEMPERATURE

MARKETS:

Automotive, Aerospace, Defense, Industrial OEM

STANDARDS:

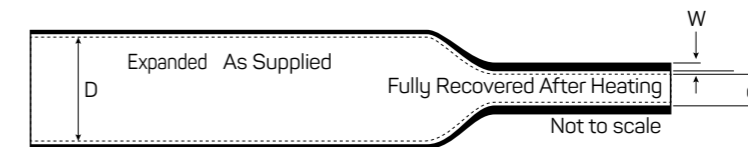


Thin wall crosslinked polyolefin

DIMENSIONS

ORDER NUMBER	EXPANDED		RECOVERED				DELIVERY UNITS				
	Internal Diameter (min) D		Internal Diameter (max) d		Total Wall Thickness (nom) W		Spool		Mini-Spool*		Pieces
	MM	IN	MM	IN	MM	IN	MM	FT	IN	FT	1.22 M / 48 IN
0063	1.60	1/16	0.50	0.020	0.45	0.018	300	984	150	492	25
0125	3.20	1/8	1.00	0.039	0.55	0.022	300	984	150	492	25
0187	4.80	3/16	1.50	0.059	0.60	0.024	300	984	75	246	25
0250	6.40	1/4	2.00	0.079	0.65	0.026	300	984	75	246	10
0375	9.50	3/8	3.00	0.118	0.75	0.030	150	492	75	246	10
0500	12.70	1/2	4.00	0.157	0.75	0.030	100	328	50	164	10
0750	19.00	3/4	6.00	0.236	0.85	0.033	50	164	30	98	10
1000	25.40	1	8.00	0.315	1.00	0.039	50	164	30	98	10
1500	39.00	1 1/2	13.00	0.512	1.15	0.045	50	164	30	98	-

*Colored items only available on mini-spools



ORDERING

Select a dimension which will shrink snugly over the component to be covered. If recovery is restricted the resultant wall thickness will be less than specified.

- Select options:
 - Color: Black (BK), Red (RD), White (WT), Clear (CL), Blue (BL), Yellow (YL), Orange (OE)
- Please specify the product name, order number and options you require
- Example: DERAY®-I 3000, 0375 or 9/3 black

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.

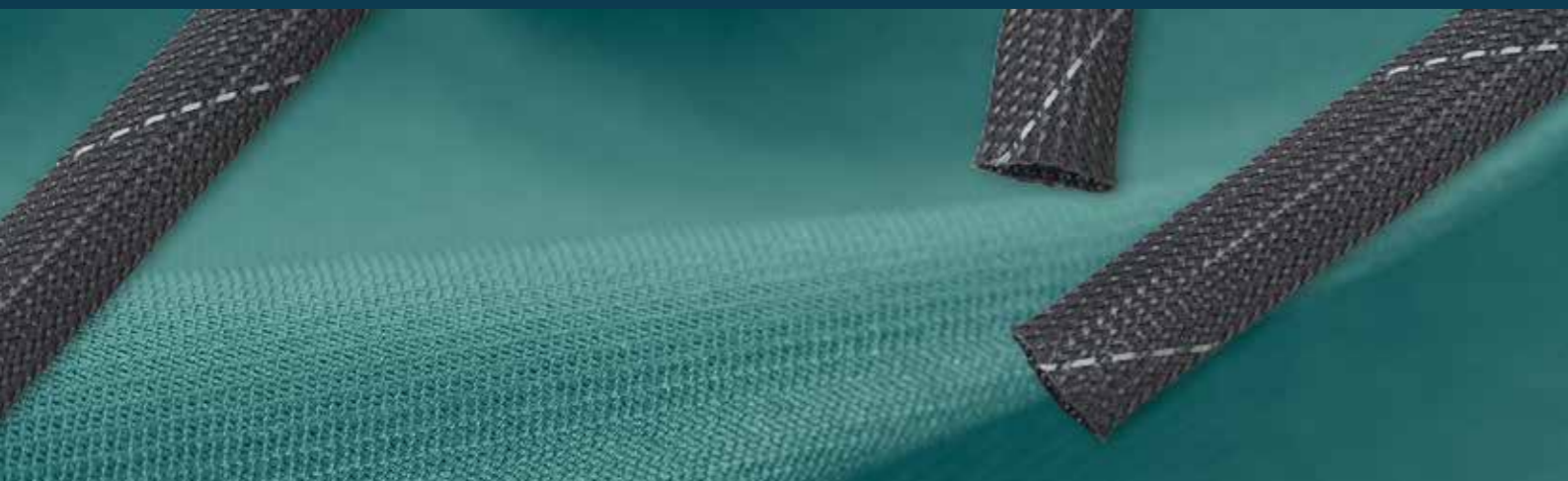


BRAIDED SLEEVE PRODUCTS

PROTECTING PIPES, HOSES AND CABLES WITH BRAIDED SLEEVES.

In addition to its standard heat shrink tubing product range, we also offer a range of braided sleeves which are used specifically to provide abrasive protection to pipes, hoses and cables as well as wire harness assemblies. The various options available provide a great deal of scope for application-specific solutions.

BRAIDED SLEEVE PRODUCTS	100-107
CanuFlex PBT V0 – Flame retardant braided sleeve.....	102
CanuFlex PE-HB – Braided sleeve.....	104
CanuRound – Self-closing wraparound protective sleeve.....	106



Flame retardant polyester PBT braided sleeve for protecting, strengthening or bundling of cables, wires, pipes and hoses such as electrical harnesses, fluid pipes, air conditioning pipes, flexible technical hoses.



FEATURES AND BENEFITS

- Flame retardant PBT monofilaments
- Particularly chemical and abrasion resistant
- Easy installation due to push-back effect and high flexibility
- Fits well to the application shape
- No emergence of condensation water
- Continuous operation temperature: -50°C to 150°C

TYPICAL APPLICATIONS

- Cable bundling and protection
- Noise reduction
- Protection against abrasion

-50°C to 150°C
(-58°F to 302°F)

CONTINUOUS OPERATING TEMPERATURE

FLAME RETARDANT

PARTICULARLY CHEMICAL AND ABRASION RESISTANT

MARKETS:

Automotive, Industrial

STANDARDS:



Flame retardant braided sleeve

DIMENSIONS

ORDER NUMBER	NOMINAL		EXPANDED		DELIVERY UNITS			
	Internal Diameter		Internal Diameter		Spool Length		Mini-Spool Lengths	
	MM	IN	MM	IN	M	FT	M	FT
03	2.0	0.079	6.0	0.236	500	1640	100	328
04	4.5	0.177	8.0	0.315	500	1640	100	328
05	5.0	0.197	10.0	0.394	500	1640	100	328
08	6.5	0.256	14.0	0.551	300	984	100	328
10	8.8	0.346	18.0	0.709	300	984	100	328
12	9.2	0.362	21.0	0.827	300	984	50	164
15	10.3	0.406	25.0	0.984	300	984	50	164
20	12.5	0.492	29.0	1.142	200	656	50	164
25	13.3	0.524	36.0	1.417	200	656	25	82
30	23.0	0.906	45.0	1.772	150	492	25	82
40	27.0	1.063	64.0	2.520	100	328	25	82
50	32.0	1.260	75.0	2.953	100	328	25	82

ORDERING

- Select options:
 - Color: Black (BK) with grey tracer yarn
- Please specify the product name, order number and options you require
- *Example:* Canuflex PBT VO, 08, black

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.



Multipurpose economic braided sleeve from polyester monofilaments for protection or bundling of cable, wires, pipes and hoses such as electrical harnesses, fluid pipes, air conditioning pipes.



FEATURES AND BENEFITS

- Very flexible
- Highly expandable
- Lightweight but tough polyester monofilaments
- Push-back effect enables an easy application
- Resistant against chemicals and abrasion
- Self-extinguishing due to braided construction
- Continuous operation temperature: -50°C to 150°C

STANDARDS

- Approved to all major Automotive OEM specifications

TYPICAL APPLICATIONS

- Cable bundling and protection
- Noise reduction
- Protection against abrasion

-50°C to 150°C
(-58°F to 302°F)

CONTINUOUS OPERATING TEMPERATURE

HIGHLY EXPANDABLE

SELF-EXTINGUISHING DUE TO BRAIDED CONSTRUCTION

MARKETS:

Automotive, Industrial

STANDARDS:



Braided sleeve from polyester monofilaments

DIMENSIONS

ORDER NUMBER	NOMINAL		EXPANDED		DELIVERY UNITS			
	Internal Diameter		Internal Diameter		Spool Length		Mini-Spool Lengths	
	MM	IN	MM	IN	M	FT	M	FT
03	2.0	0.079	6.0	0.236	500	1640	100	328
05	5.0	0.197	10.0	0.394	500	1640	100	328
08	6.5	0.256	14.0	0.551	300	984	100	328
10	8.8	0.346	18.0	0.709	300	984	100	328
12	9.2	0.362	21.0	0.827	300	984	50	164
15	10.3	0.406	25.0	0.984	300	984	50	164
20	12.5	0.492	29.0	1.142	200	656	50	164
25	13.3	0.524	36.0	1.417	200	656	25	82
30	23.0	0.906	45.0	1.772	150	492	25	82
40	27.0	1.063	64.0	2.520	100	328	25	82
50	32.0	1.260	75.0	2.953	100	328	25	82

ORDERING

- Select options:
 - Color: Black (BK)
 - Non-standard colors: Orange (OE), Grey (GY)
- Please specify the product name, order number and options you require
- *Example:* Canuflex PE-HB, 08, black

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.



Self-closing wraparound protective sleeve for wires, cables, pipes, hoses and foam insulation to avoid mechanical degradation arising from exposure to tough conditions.

FEATURES AND BENEFITS

- Easy and quick installation
- Retrofit
- Self-closing due to spring-back effect
- Excellent abrasion resistance
- Noise absorbing
- Continuous operation temperature: -50°C to 150°C

STANDARDS

- Approved to all major Automotive OEM specifications

TYPICAL APPLICATIONS

- Cable bundling and protection
- Noise reduction
- Protection against abrasion



-50°C to 150°C
(-58°F to 302°F)

CONTINUOUS OPERATING TEMPERATURE

EASY AND QUICK INSTALLATION

SELF-CLOSING DUE TO SPRING-BACK EFFECT

MARKETS:

Automotive, Industrial

STANDARDS:



Self-closing wraparound protective sleeve

DIMENSIONS

ORDER NUMBER	NOMINAL		DELIVERY UNITS	
	Internal Diameter		Spool Lengths	
	MM	IN	M	FT
05	5.0	0.197	50	164
09	8.0	0.315	50	164
13	12.0	0.472	50	164
18	20.0	0.787	50	164
25	25.0	0.984	25	82
29*	29.0	1.142	25	82
35	35.0	1.378	25	82
50	50.0	1.969	10	32

*against MOQ

ORDERING

- Select options:
 - Color: Black (BK)
 - Non-standard color: Orange (OR)
- Please specify the product name, order number and options you require
- *Example:* CanuRound, 09, black

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet.



APPLICATION EQUIPMENT PRODUCTS

ENGINEERING AND BUILDING HIGH-PERFORMANCE HEAT SHRINK APPLIANCES IN-HOUSE FOR STANDARD MACHINES AS WELL AS UNIQUE APPLICATIONS.

In addition to the standard heat shrink tubing product line, we provide a full range of technically advanced shrink appliances. Years of experience in processing heat shrink materials have resulted in the creation of a variety of processing devices, from a simple heat gun to high-performance shrink tunnels. Beyond the numerous standard machines, our Machine Technology Center (MTC) designs and constructs custom machines for unique applications.



DERAY®-SPLICEMAN IR

DESCRIPTION

DERAY®-SpliceMan IR is a semiautomatic unit with infrared heating elements designed to seal and insulate ultrasonically welded- and crimped splice joints.

FEATURES AND BENEFITS

- Up to 125 data sets storable
- Adjustable process time
- Data connection with ultrasonic welding machine



DERAY®-FST 750-S

DESCRIPTION

The DERAY®-FST 750-S is a semi-automatic shrink tunnel with infrared heating elements. The shrink device is designed to process heat shrinking products to seal and insulate ultrasonically welded- and crimped splice joints.

FEATURES AND BENEFITS

- Up to 10 mm² cable cross section
- 190 mm integrated cooling zone



DERAY®-BOARD-WORKMAN TP ADE

DESCRIPTION

DERAY®-Board-Workman TP ADE is a mobile shrink machine which is used on the cable board with a balancer. It has been designed to seal and insulate ultrasonically welded and crimped end splices on stationary and mobile cable boards in transfer lines.

FEATURES AND BENEFITS

- Automatic outer diameter detection system and assignment of shrinkage parameters



DERAY®-PSP 240-S

DESCRIPTION

The DERAY®-PSP 240-S shrinking machine is a semiautomatic unit designed to install and shrink splice sealing products with a maximum of 5 splices in one work operation onto ultrasonically welded or crimped splice joints.

FEATURES AND BENEFITS

- Adjustable process time
- 10 k hrs long life heating elements



DERAY®-LEAKAGE TESTER

DESCRIPTION

The DERAY®-Leakage testing device is built in a desktop version and is especially designed for the leaking test of crimped and welded wire applications assembled with heat shrink tubes.

FEATURES AND BENEFITS

- The testable wire cross sections are 0.13 mm² - 10 mm²
- Testing of up to 20 lines for leaks
- Pressure monitoring in each test chamber



DERAY®-SHUTTLE 240 / 60

DESCRIPTION

The DERAY®-Shuttle 240 / 60 is a single table-top workstation and a semiautomatic shrinking device for sealing and insulating ultrasonically welded- and crimped ring cable lugs, tubular cable lugs and end splices.

FEATURES AND BENEFITS

- Up to 20 applications per Cycle
- Up to 85 mm² cable cross sections processable
- Two independent frames



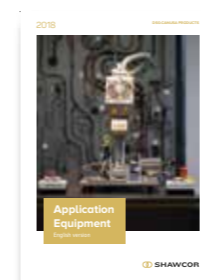
DERAY®-DOCKMAN JUNIOR ENDSPLICE

DESCRIPTION

The DERAY®-DockMan Junior Endspline is a semi-automatic hot air shrink appliance for processing heat shrinking tubing in wiring systems. It is primarily used for mobile, manual use on the cable board with a balancer.

FEATURES AND BENEFITS

- High flexibility as the appliance can be docked to any position on the forming board



For more information on our DSG-Canusa Shrink Appliances, please ask your Sales Representative for a copy of our Application Equipment Catalog.

PRODUCT SELECTION CHART

SPLICE SEALING PRODUCTS

PRODUCT NAME	SHRINK RATIO	DESCRIPTION	OPERATING TEMPERATURE		FLAME RATING	STANDARDS	SIZES	PAGES
			MIN	MAX				
DERAY®-Crimpseal II	3:1	Halogen free, crystal clear and adhesive lined tubing with integral solderless splice connector	-55 °C	125 °C	-	UL File # E470828	3.7 - 6.5	14-17
DERAY®-DuoMelt	-	Good chemical & fuel resistance, adhesion to PVC, XLPE, PP-EPDM wire insulating materials	-40 °C	85 °C / 105 °C	-	OEM longitudinal water blocking specifications	10.0 - 15.0	18-19
DERAY®-IAKT NS	9:1	Adhesive lined, moisture-resistant	-55 °C	110 °C	-	PSA N° 9623093499	10.0	20-21
DERAY®-PressMelt	-	Water sealing in small cable bundles, good chemical and fuel resistance	-40 °C	125 °C	-	OEM longitudinal water blocking specifications	5.0 - 9.0	22-23
DERAY®-SpliceMelt	4:1	Adhesive lined, moisture-resistant	-40 °C	125 °C	Colors: ASTM-D 876, clear: FMVSS 302	Automotive OEM splice sealing specifications	6.0 - 18.0	24-25
DERAY®-SpliceMelt Cap	4:1	Adhesive lined, moisture-resistant	-40 °C	125 °C	Colors: ASTM-D 876, clear: FMVSS 302	Automotive OEM splice sealing specifications	4.5 - 18.0	26-27
DERAY®-SpliceMeltband	-	Adhesive tape sealing system, good chemical and fluid resistance	-40 °C	125 °C	ASTM-D 876	OEM longitudinal water blocking specifications	10.0 - 15.0	28-30

WATER BLOCKING PRODUCTS

PRODUCT NAME	SHRINK RATIO	DESCRIPTION	OPERATING TEMPERATURE		FLAME RATING	CERTIFICATIONS	SIZES	PAGES
			MIN	MAX				
DERAY®-Autoseal	-	Automatic working system to absorb water	-40 °C	150 °C	-	BMW water blocking specification	40.0 - 80.0	32-33
DERAY®-Coldmelt I 85 °C	-	Sealing system with butyl, moisture- and fluid resistant	-40 °C	85 °C	-	OEM water blocking specifications	10.0 - 62.0	34-35
DERAY®-Coldmelt I 105 °C	-	Sealing system with butyl, moisture- and fluid resistant	-40 °C	105 °C	-	OEM water blocking specifications	10.0 - 62.0	36-37
DERAY®-Coldmelt I 125 °C	-	Sealing system with butyl, moisture- and fluid resistant	-40 °C	125 °C	-	OEM water blocking specifications	10.0 - 62.0	38-39

HIGH TEMPERATURE PRODUCTS

PRODUCT NAME	SHRINK RATIO	DESCRIPTION	OPERATING TEMPERATURE		FLAME RATING	CERTIFICATIONS	SIZES	PAGES
			MIN	MAX				
DERAY®-KY 175	2:1	Semi-rigid thin wall Kynar® heat shrink tubing, excellent chemical/solvent resistance	-55 °C	175 °C	UL 224 VW-1	UL-224 VW-1, CSA OFT, SAE-AMS-DTL 23053/8, DEF STAN 59-97 Type 3, BS G198 Part 4 Type 20, VG 95343 Part 5 Type F, PAN 6491, VW 60360-3	1.2 - 25.4	42-43
DERAY®-KYF 190	2:1	High temp., flexible thin wall Kynar® heat shrink tubing, extreme chemical/solvent resistance	-55 °C	190 °C	UL 224 VW-1	UL-224 VW-1, SAE-AMS-DTL-23053/18 Class 2, VW 60360-3	1.2 - 15.0	44-45
DERAY®-PTFE	4:1	Teflon® based heat shrink tubing, chemically inert, high shrink ratio	-65 °C	260 °C	UL 224 VW-1	SAE-AMS-DTL-23053/12 Class 5	1.98 - 31.75	46-47
DERAY®-PTFE AWG	2:1	Teflon® based heat shrink tubing, chemically inert, AWG sizes	-65 °C	260 °C	UL 224 VW-1	-	0.86 - 11.94	48-49
DERAY®-V25	2:1	Resistant to diesel, oil, hydraulic fluids and other chemicals	-75 °C	150 °C	UL 224 ATF	DEF STAN 59-97 Type 6b, BS G198 Part 3 Type 10A, SAE-AMS-DTL-23053/16, VG 95343 Part 5 Type D, PAN 6480K	2.4 - 76.0	50-51
DERAY®-VT 220	2:1	High temp. fluoroelastomer, abrasion resistant, withstand to corrosive fluids in extreme temp.	-55 °C	220 °C	UL 224 VW-1	DEF STAN 59-97 Type 4a, BS G198 Part 3 Type 12A, VG95343 Typ E, PAN6480L, GS 95008-3-3	3.2 - 50.80	52-53
DERAY®-VT 220 TW	2:1	Highly abrasion resistant, very flexible	-55 °C	200 °C	UL 224 VW-1	AMS-DTL 23053/13	3.2 - 51.0	54-55

HOSE & PIPE PROTECTION PRODUCTS

PRODUCT NAME	SHRINK RATIO	DESCRIPTION	OPERATING TEMPERATURE		FLAME RATING	CERTIFICATIONS	SIZES	PAGES
			MIN	MAX				
DERAY®-HB NS K48	>2:1	Resistant against chemicals, corrosion protection	-55 °C	135 °C	FMVSS 302	-	19.0 - 40.0	58-59
DERAY®-IB CON	3:1	Semiconducting, adhesive lined shrink tube	-30 °C	105 °C	-	Ford and GM fuel line specification	13.5 - 17.5	60-61
DERAY®-KWS R	>2:1	Halogen free, abrasive resistance	-55 °C	135 °C	FMVSS 302	TL 52668 Type C, TL 52361, JIS D 1201 1973	18.0 - 76.0	62-63

TERMINAL & BATTERY SEALING PRODUCTS

PRODUCT NAME	SHRINK RATIO	DESCRIPTION	OPERATING TEMPERATURE		FLAME RATING	CERTIFICATIONS	SIZES	PAGES
			MIN	MAX				
DERAY®-ACT	>3:1	Adhesive lined, moisture-resistant	-40 °C	125 °C	FMVSS 302	VW 60360-3, MBN LV 312-3, GMW 17136	14.0 - 35.0	66-67
DERAY®-HDP	>2:1	Halogen free, high density heat shrink tubing	-40 °C	135 °C	FMVSS 302	VW 60360-3, GS 95003-3-3	15.0 - 20.0	68-69
DERAY®-IAKT 3:1 / 4:1	3:1 / 4:1	Adhesive lined, moisture-resistant	-55 °C	110 °C	Colors: ASTM-D 876, clear: FMVSS 302	Industrial, electronic and automotive OEM approvals	3.0 - 52.0	70-71
DERAY®-IHKT	4:1	Adhesive lined, superior sealing against water and moisture, high shrink ratio	-55 °C	125 °C	Colors: ASTM-D 876, clear: FMVSS 302	SAE-AMS-DTL-23053/4 Class 3, Automotive OEM specifications	4.0 - 52.0	72-73
DERAY®-MC 225	3:1	High resistance to impact and abrasion	-40 °C	135 °C	FMVSS 302	VG 95343 Part 5 Type G, Automotive OEM specifications, GMW 17136, GS 95008-3-3	12.0 - 95.0	74-75
DERAY®-MGT 5-System	6:1	Adhesive lined, moisture-resistant	-40 °C	125 °C	ASTM-D 2671	FCA Standard, Fiat N° 91309/1	16.0	76-77
DERAY®-RKS	>3:1	High shrink ratio, adhesive lined, moisture-resistant	-40 °C	125 °C	FMVSS 302	VW 60360-3	6.3 - 18.0	78-79

SEATBELT PRODUCTS

PRODUCT NAME	SHRINK RATIO	DESCRIPTION	OPERATING TEMPERATURE		FLAME RATING	CERTIFICATIONS	SIZES	PAGES
			MIN	MAX				
DERAY®-IB NS	>2:1	Halogen free, economical heat shrink tubing	-55 °C	135 °C	-	Automotive TIER 1 specifications	16 - 51.0	82-83

INSULATING CAPS

PRODUCT NAME	SHRINK RATIO	DESCRIPTION	OPERATING TEMPERATURE		FLAME RATING	CERTIFICATIONS	SIZES	PAGES
			MIN	MAX				
DERAY®-BIOK	-	Halogen free with integral butyl liner	-35 °C	85 °C	-	Automotive OEM specifications	3.0 - 12.0	86-87
DERAY®-HIOK	-	Soft PVC, resistant to aggressive media and fuel	-35 °C	85 °C	-	Automotive OEM specifications	3.0 - 11.0	88-89
DERAY®-IOK	-	Soft PVC, 100% electrical insulation, resistant to aggressive media and fuel	-35 °C	85 °C	-	Automotive OEM specifications	3.0 - 16.0	90-91

SINGLE WALL PRODUCTS

PRODUCT NAME	SHRINK RATIO	DESCRIPTION	OPERATING TEMPERATURE		FLAME RATING	CERTIFICATIONS	SIZES	PAGES
			MIN	MAX				
DERAY®-H	2:1	Multi-purpose heat shrink tubing	-55 °C	135 °C	Colors: UL 224 ATF, clear: FMVSS 302	UL 224, 125°C (colors only), CSA (colors only), Automotive OEM specifications	1.2 - 101.6	94-95
DERAY®-I	2:1	Multi-purpose, highly certified tubing	-55 °C	135 °C	Colors: UL 224 ATF, clear: FMVSS 302	UL 224, 125°C (colors only), CSA (colors only), SAE-AMS-DTL-23053/5 Class 1 + 2, DEF STAN 59-97 Type 2b, BS G198 Part 3 Type 11B, VG95343 Part 5 Type A/B, Automotive OEM specifications	1.2 - 101.6	96-97
DERAY®-I 3000	3:1	High shrink ratio	-55 °C	135 °C	Colors: UL 224 ATF, clear: FMVSS 302	UL 224, 125°C (colors only), SAE-AMS-DTL-23053/5 Class 1 + 2, DEF STAN 59-97 Type 2b, BS G198 Part 3 Type 11B, VG95343 Part 5 Type A/B, Automotive OEM specifications	1.6 - 39.0	98-99

BRAIDED SLEEVE PRODUCTS

PRODUCT NAME	SHRINK RATIO	DESCRIPTION	OPERATING TEMPERATURE		FLAME RATING	CERTIFICATIONS	SIZES	PAGES
			MIN	MAX				
Canuflex PBT V0	-	Chemical and abrasion resistant	-50 °C	150 °C	UL 94 V0	-	2.0 - 32.0	102-103
Canuflex PE-HB	-	Highly expandable, multipurpose economic braided sleeve	-50 °C	150 °C	-	Automotive OEM specifications	2.0 - 32.0	104-105
Canuround	-	Retrofit and noise absorbing, abrasion resistance	-50 °C	150 °C	-	Automotive OEM specifications	5.0 - 50.0	106-107

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Visit our Website for more information about Shawcor's Connections Systems Group including DSG-Canusa and Shawflex:

www.shawcor.com/connections-systems

PROCESSING INFORMATION

TUBING SELECTION AND PROCESSING INFORMATION

Easy processing makes heat shrink tubing an economical and functional solution. Please keep the following processing notes in mind:

- The selected heat shrinkable tubing should be capable of shrinking to a size 20% smaller than the object to be covered.
- If necessary, cut the shrink tubing to the desired length. Please make sure to have a smooth cut edge.
- Slide the tubing over the object to be sealed.
- Shrink the tubing onto the object, starting at one end. Use a heating appliance for this process, e.g. a heat gun or a shrink device.
- The optimal shrink temperature of the selected material is vital to assure a short shrink period. Please make sure to use the appointed shrink temperature for each product.
- Ensure even heat distribution to prevent overheating. Overheating the material may cause bubbles, discoloration or damage to the tube.
- Heat shrink tubing with an adhesive inner lining may have a slight discharge at the end.

If you have any further questions, our application engineers will be happy to assist you.

ORDERING INFORMATION

When ordering, please specify for each item the following information:

- Name and/or Order number
- Dimension
- Options, if available: e.g. Colour
- Quantity: Length, Cut-Length or Pieces

Example: **DERAY®-H, 0250 or 1/4", black, 300 m**

Please contact your Customer Service Representative for information on custom colors, sizes, lengths and material data sheet via phone or e-mail you'll find at the back of this catalog.



We advise that customers should separately evaluate the suitability of our products for their particular application. Our responsibilities are only those listed in our Standard Terms and Conditions of Sale for these products. Please ask for the latest version of this catalog Subject to modification without prior notice.

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