

CANZAC® IGROUP

Improving the performance of concrete worldwide®

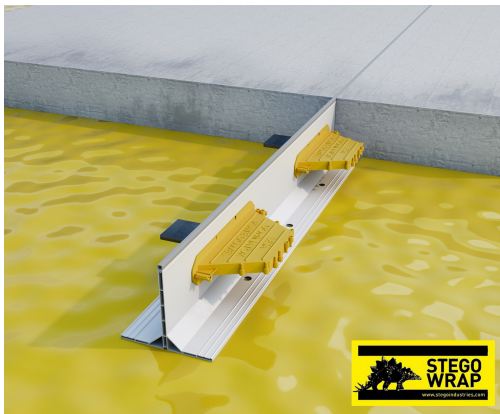


FORMWORK SYSTEMS

DUALCAST

DATA SHEET

Dualcast® UPVC Screed Rails offer a lightweight, durable, and recycled alternative to steel and timber formwork. No removal needed, just cut to size, anchor, and pour! Engineered for versatility, Dualcast® rails are compatible with all types of screeds, including twin beams, Roller Strikers, and Vibro Strikers. The patented design includes a removable top strip for joint sealing, while unique end clips enable fast and seamless installation. Dualcast® screed rails provide a hassle-free, high-performance solution for forming reliable, long-lasting concrete joints.



KEY FEATURES / BENEFITS

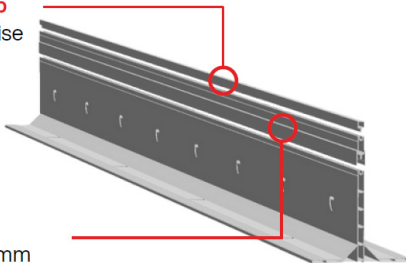
- Fast & Easy Installation - Pre-drilled for dowels & secure anchoring
- No Removal Needed - Sacrificial system saves time & labour
- Removable Top Strip - Simplifies joint sealing
- Versatile & Reliable - Compatible with all screed methods
- Recycled UPVC - Sustainable, strong & built to last

SPECIFICATIONS

- Rail Height (mm) - 135mm
- Rail Length (mm) - 2400mm
- Weight (kg) - 2.5kg

Removable Capping Strip

Easily detachable for precise joint detailing. DC135

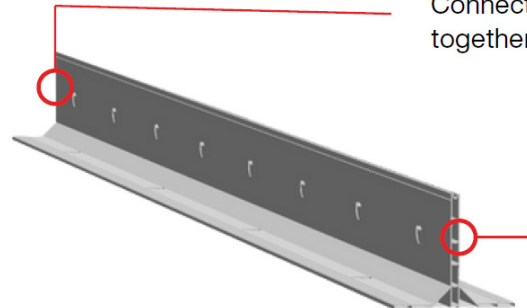


25mm Extender Strip

Adds 25mm height (or 50mm with two strips) for flexibility. Quick and secure connection. DCEXT25

Joining Clip

Connects rail lengths together. DCJoint



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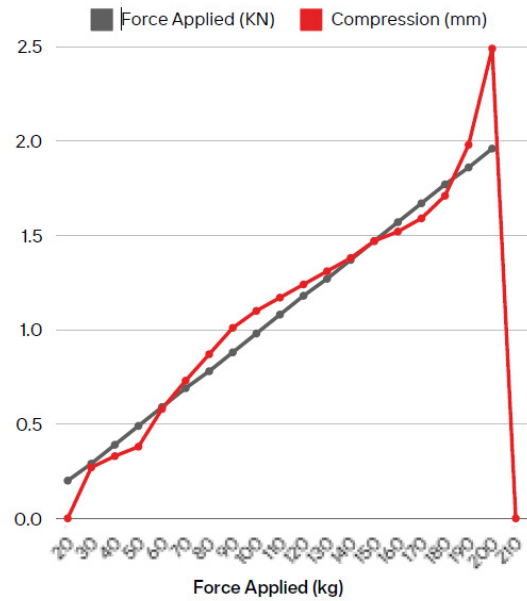


FORMWORK SYSTEMS

Compression Test Carried out on Dualcast

Compression Test of the Vertically Resilient Deformable Section

Dualcast 100mm section		
Force Applied (KN)	Force Applied (kg)	Compression mm
0.20	20	0
0.29	30	0.27
0.39	40	0.33
0.49	50	0.38
0.59	60	0.58
0.69	70	0.73
0.78	80	0.87
0.88	90	1.01
0.98	100	1.1
1.08	110	1.17
1.18	120	1.24
1.27	130	1.31
1.37	140	1.38
1.47	150	1.47
1.57	160	1.52
1.67	170	1.59
1.77	180	1.71
1.86	190	1.98
1.96	200	2.49
	210	buckle



Side deflection Dualcast 100mm section		
Force Applied (KN)	Force Applied (kg)	Bend distance
0.35	36	10mm

Complete vertical compression Dualcast		
Force Applied (KN)	Force Applied at failure (kg)	Bend Distance
44.13	4500	3.04mm



Dualcast 100mm section side compression		
Force Applied (KN)	Force Applied (kg)	Compression mm
0.98	100	1mm
4.17	425	2mm
12.26	1250	3mm
14.51	1480	4mm
21.57	2200	5mm
29.42	3000	6mm
38.25	3900	6.7mm
Failure	Failure	Failure



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PVC MATERIAL PROPERTIES

Chemical Resistance

- Highly resistant to various chemicals, including acids, bases, solvents, and oils.
- Chlorine content and strong covalent bonds enhance its stability.
- Ideal for applications requiring resistance to chemical degradation (e.g., fuel tanks, sewage systems, industrial waste management).

PHYSICAL PROPERTIES

- **High Tensile Strength:** Withstands pulling forces, making it highly durable and resistant to deformation.
- **Impact Resistance:** Excellent shock absorption properties, suitable for construction and automotive uses.
- **Low Coefficient of Friction:** Reduces wear and tear, enabling use in movable and stationary parts.
- **Cost-Effective:** Offers high performance at a low cost, making it widely used in industries like piping, window frames, and electrical insulation.

Table of Polyvinyl Chloride Properties	
Physical Properties	Metric
Category	Thermoplastic
Density	1160 - 1550 kg/m ³
Water Absorption	0.15 - 1 %wt/day
Mechanical Properties	Metric
Ultimate Tensile Strength	7 - 27 MPa
Young's Modulus (E)	2.1 - 2.7 GPa
Flexural Modulus	1 GPa
Elongation at Break	4.5 - 65%
Shore Hardness (D)	65 - 85
Thermal Properties	Metric
Melting Point	212 °C
Thermal Conductivity	0.167 W/m-K
Specific Heat Capacity (C _p)	1674 J/kg-K
Coefficient of Thermal Expansion (α _L)	6×10 ⁻⁵ - 7×10 ⁻⁵ 1/°C
Glass Transition Temperature (T _g)	81 - 87 °C
Electrical Properties	Metric
Relative Permittivity (@1 MHz) (ε _r)	2.9 - 3.6
Electrical Resistivity	10 ¹⁶ Ω-cm
Dielectric Field Strength (E _d)	160 - 590 kV/cm
Optical Properties	Metric
Refractive Index (589 nm)	1.54
Hazardous Data	Metric
Flammability Rating (ANSI/UL 94)	Self extinguishable