

DM 158NN Dam Product Datasheet

Outstanding Thermal Cycling Performance

Excellent Mechanical Shock Performance

High Process Yield

Description

DM 158NN is a non-flow, low temperature fast cure and high purity liquid epoxy encapsulant. It can generate very thin and high dam walls. This material can be used for flip chip, wafer-level chip scale package applications. It is also suitable for bare chip protection in a variety of advanced packages such as memory cards, chip carriers, hybrid circuits and multi-chip modules. It is designed for high production and friendly environments where process speed, mechanical shock and high reliability are the key concerns. This material is easily dispensed, minimizes induced stresses and provides outstanding reliability performance (e.g. temperature cycling performance) and excellent mechanical resistance.

Typical Physical Properties

Product Name	DM 158NN Dam Materials
PROPERTIES OF UNCURED MATERIAL	Slight
Appearance	Black
Specific Gravity (ASTM D 1475-60)	2.5 g/cc
Viscosity (Brookfield, 0.5 rpm)	280 – 600 kcp
PROPERTIES OF CURED MATERIAL	
Glass Transition Temperature (Tg) (ASTM D3418-82)	156°C

C.T. E (ASTM E 831), PPM /°C	$\alpha_1 = 22$; $\alpha_2 = 71$
Lap Shear Strength (FR4/FR4)	2600 psi
Extractable ions (MIL-STD-883E)	
Na+	<5ppm
K+	<5ppm
F-	<5ppm
Cl-	<10ppm
Surface insulation resistance (J-STD-004)	Pass

Recommended Curing Conditions

30-60min at 150°C

Other alternative cure profiles are available depending on customer request.

Storage & Shelf Life

6 months provided materials are kept in a sealed original container at –40 °C. Storage beyond this period can produce higher viscosity. Protect from moisture, evaporation and foreign materials. Process ability of these products can be adversely affected by evaporation and contamination.

Safety

DM 158NN is a friendly, non-toxic material. However, general hygiene practice is recommended when handling this material. For detailed information, please consult the product SDS.

Package

DM 158NN dam material series are available in 10 cc and 30cc packages. Other packages are available depending upon customer's request. Contact YINCAE for order information.