



PRODUCT INFORMATION

TECHNICAL DATASHEET

7/9/2010

HYPERLAST EMH 80D NATURAL

Introduction

HYPERLAST™ EMH 80D is a two component sprayable rigid coating that offers excellent abrasion, impact and anti-corrosive properties. This coating can be applied to a wide variety of substrates when used with the appropriate primer. It has been designed to be applied through 1:1 volumetric high pressure plural component impingement mixing spray equipment and due to its rapid reaction time produces a sprayed film which is touch dry in seconds. This ensures both horizontal and vertical surfaces can be coated in one single application.

Component Properties

Polyol Component

Product Reference	HYPERLAST EMH 80D
Appearance	Unpigmented Liquid at 25 °C
Viscosity	300 - 1000 cps at 25 °C
Specific Gravity	1 - 1.04 at 25 °C

Isocyanate Component

Product Code	HYPERLAST 5257 Isocyanate
Appearance	Pale Straw Liquid at 25 °C
Viscosity	530 - 750 cps at 25 °C
Specific Gravity	1.21 - 1.23 at 25 °C

Mixed System

Mixing Ratio	0.91 :1 by weight (Polyol : Isocyanate)
Gel Time	0' 5" - 0' 10" (100 gms at 25 °C)

Cured System – Typical Properties

Property	Test Method	Value	Unit
Shore Hardness	BS 2782 Meth 365B	75 - 80	°D
Tensile Strength	BS 903 Pt A2	38	MPa
Elongation at Break	BS 903 Pt A2	7	%
Izod Impact Strength (Notched)	BS 2782 Method 350	3.3	KJ/m ²
Flexural Modulus	ASTM D790	1900	MPa
Flexural Strength	ASTM D790	67	MPa
Youngs Modulus	ASTM D638	1350	MPa
Heat Distortion Temperature	BS 2782 Meth 121A/B	75	°C
Density	BS 903 Pt A1	980	Kg/m ³

Processing Details

The following information is given as a guide to processing this product. It is recommended that optimum conditions for a specific application are determined experimentally. Our Technical Service Department can offer more detailed advice.

Recommended Processing Temperatures

Polyol Component	60 - 70 °C
Isocyanate Component	65 - 75 °C
Mould Temperature	Consult our Technical Service Department
Recommended Spray Pressure	2,200 – 2,850 psi
Recommended Module and Tip Size	AF2929 and 424 - 438

Recommended Cure Cycle

Cure at 80 °C for 1 – 2 hours to reach full properties.

Additional Processing Details

Pre-condition the materials at 40 – 50 °C and then raise to the processing temperature. Ensure the polyol is of a homogeneous consistency. Our Technical Service Department can give general information on the types of machine processing available for our spray applied elastomer systems.

Storage and Handling

		Shelf life
Polyol Component	Store in original tightly sealed containers at a temperature of 0 - 30 °C. Avoid contact with moisture.	12 months
Isocyanate Component	Store in original tightly sealed containers at a temperature of 15 - 30 °C. Avoid contact with moisture. Storage below the recommended minimum temperature may result in freezing of the Isocyanate. If the Isocyanate does not fully melt out when raised to the processing temperature it may be necessary to re-melt at a temperature of 60 - 70 °C following the procedures laid down in the information sheet 'ISOCYANATES - HAZARDS AND SAFE HANDLING PROCEDURES'.	6 months

More detailed information on the storage and handling of polyurethane components can be obtained by contacting our Technical Service Department.

Packaging

Polyol Component	25 Kgs, 200 Kgs
Isocyanate Component	25 Kgs, 225 Kgs

Safety Considerations

Customer should refer to the Dow product Material Safety Data Sheet (MSDS) to understand the hazards of the product and safe handling guidance.

Customer Notice

Dow encourages its customers to review their applications of Dow products from the standpoint of human health and environmental quality. For further information about safety considerations for your product/application, please contact your Dow Sales representative.

Contact Information:

For more information
contact:

www.dowhyperlast.com

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