



Formulated Systems

PRODUCT INFORMATION

TECHNICAL DATASHEET

4/15/2011

DURAMOULD ET 45A (RED)

Introduction

DURAMOULD™ ET 45A (Red) is a polyol based curative which reacts with DURAMOULD 5223 Isocyanate prepolymer to produce a polyurethane elastomer with high extensibility. The product has good moisture tolerance and can be used to take masters from stone, plaster etc.

Component Properties

Polyol Component

Product Reference	DURAMOULD ET 45A (Red)
Appearance	Red Liquid at 25 °C
Viscosity	500 – 1000 cps at 25 °C
Specific Gravity	1.01 - 1.04 at 25 °C

Isocyanate Component

Product Reference	DURAMOULD 5223 Isocyanate
Appearance	Colourless Liquid at 25 °C
Viscosity	5000 - 9000 cps at 25 °C
Specific Gravity	1.02 - 1.06 at 25 °C

Mixed System

Mixing Ratio	1 : 1 by weight (Polyol : Isocyanate)
Gel Time	15' 0" - 25' 0" (100 gms at 25 °C)

Cured System – Typical Properties

Property	Test Method	Value	Unit
Shore Hardness	BS EN ISO 868	45	°A
100% Modulus	BS 903 Pt A2	1.2	MPa
Tensile Strength	BS 903 Pt A2	5.4	MPa
Elongation at Break	BS 903 Pt A2	1000	%
Angle Tear Strength	BS 903 Pt A3	24	N/mm
Split Tear Strength	ASTM D470	6	N/mm

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	20 – 30 °C
Isocyanate Component	20 – 30 °C

Recommended Cure Cycle

Product will be fully cured within 24 - 72 hours at room temperature (25 °C). However, moulds should not go into service for 5 - 7 days.

Storage and Handling

		Shelf life
Polyol Component	Store in tightly sealed containers at a temperature of 0 - 30 °C. Raise to the processing temperature and mix well before use. Avoid contact with moisture.	12 months
Isocyanate Component	Store in tightly sealed containers at a temperature of 0 - 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'.	9 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, 215 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
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