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## Eracure 110

POLYURETHANE CURATIVE

# TECHNICAL DATASHEET

**Eracure 110** is a blended liquid aromatic diamine polyurethane curative. It is free of mercury catalyst, MOCA and flammable solvents.

**Eracure 110** is a liquid at room temperature and can be processed at ambient or elevated temperatures.

## Application

**Eracure 110** has been formulated for use in applications where excellent abrasion and wear characteristics are required. It has been designed such that catalyst may be added to the curative to decrease demould time.

## Product Specification

Equivalent Weight	114
Appearance	Opaque tan liquid
Moisture Content (%)	<0.05
Specific Gravity at 20°C	1.2
Viscosity at 25°C (cps)	350 – 450

## Processing

**Eracure 110** is a low viscosity blended curative. **Eracure 110** must be mechanically stirred before processing or decanting. Loading can be accomplished with simple hand pumps or gravity feed. Dry nitrogen should be used to blanket curative tanks.

## % Theory

Selection of 95% theory is generally recommended. Lowering it to 85% theory will improve compression set and raise 300% modulus (tensile). Increasing to 105% theory will enhance tear strength and elongation.



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## Physical Properties

The following physical properties were obtained by curing Erapol EHP95A with Eracure 110. Physical properties will depend on the prepolymer used.

		ERAPOL EHP95A / ERACURE 110	TEST METHOD
<b>Hardness</b>	(Shore A)	95 ± 3	AS1683.15
<b>Tensile Strength</b>	(MPa)	40.6	AS1683.11
<b>Angle Tear Strength, Die C</b>	(kN/m)	115	AS1683.12
<b>Elongation</b>	(%)	440	AS1683.11
<b>DIN Resilience</b>	(%)	46.4	DIN 53512
<b>DIN Abrasion Resistance 10N</b>	(mm <sup>3</sup> )	34.1	AS1683.21
<b>DIN Abrasion Resistance 5N</b>	(mm <sup>3</sup> )	17	AS1683.21

## Mix Ratio

The following equation calculates the amount of Eracure 110 required for 100 parts (by weight) of prepolymer.

$$\%NCO \times 2.72 \times \%Theory = \text{Eracure 110 parts per hundred}$$

%Theory is expressed as a decimal, i.e. 95% Theory is 0.95 for the calculation.

## Mould temperature and Post Cure

Mould temperature is generally higher than mix temperature. Moulds should be preheated between 80 - 100°C and maintained at that temperature during cure. Demould time will vary with prepolymer and part size. Small parts (2 kg) can usually be demoulded after 20 minutes, while larger parts will require more time.

TDI polyether and polyester prepolymers cured with **Eracure 110** should be cured for 16 hours at 100°C to attain maximum physical properties.

## Storage, Handling and Safety

**Eracure 110** should be stored in sealed containers and protected from moisture and oxidation by dry nitrogen. Although the product is not particularly hygroscopic, containers should not be left open to the atmosphere. Chemical stability is excellent under normal conditions, but storage in areas of excess heat and/or high humidity should be avoided. Flush an opened container with dry nitrogen before resealing.

In the event of a spill, contain with dykes or absorbents to prevent entry into sewers or streams. Small spills can be taken up with dry chemical absorbent. Refer to MSDS for further information.

Personnel handling this product should use safety goggles when there is a possibility of eye contact. In case of eye contact, immediately flush with water for 15 minutes and get medical attention. In case of skin contact, wash the exposed area with soap and water. If ingested, give two glasses of water.

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