

TECHNICAL DATASHEET

Eracure SA300 is a liquid aromatic diamine polyurethane curative. Cast polyurethane stress/strain physical properties are excellent. At similar hardness, these properties compare favourably with other diamine curatives.

Eracure SA300 curative is convenient to use because it is a liquid at room temperature and is processed at room temperature.

Product Specification

Eracure SA300	
Chemical name	1,3 Benzenediamine, 4-methyl-2,6-bis (methylthio) 1,3 Benzenediamine, 2-methyl-4, 6-bis (methylthio)
Equivalent Weight	107
Appearance	Light to dark amber*, low viscosity liquid
Moisture Content (%)	< 0.10
Specific Gravity at 20°C	1.21
Viscosity at 25°C (cps)	420
Boiling Point (°C)	353

* for critical cosmetic applications please consider Ethacure 300

Processing

Eracure SA300 is a low viscosity liquid that is ready for immediate use. Loading can be accomplished with simple hand pumps or gravity feed. Dry nitrogen should be used to blanket curative tanks.

Eracure SA300 processes similarly to Ethacure 300 with similar hardness development, demould times and similar physical properties.

% 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.

This information is of general nature and is supplied without recommendation of guarantee. It does not make claim to be free from patent infringement. Properties shown are typical and do not imply specification tolerances. Era Polymers cannot accept liability for loss or damage through use. Whilst these technical details are based on expert knowledge, practical experience and laboratory testing, successful application depends upon the nature and conditions in which the products are supplied. Users must, by comprehensive testing, evaluate this product in their own application.

Mix Ratio

The following equation calculates the amount of **Eracure SA300** required for 100 parts (by weight) of prepolymer.

$$\%NCO \times 2.55 \times \%Theory = \text{Eracure SA300 pph}$$

%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.

The recommended post cure conditions for TDI polyether and polyester prepolymers are 16 hours at 100°C. Prepolymers based on TDI/PTMEG (high performance ERAPOLS) may require shorter post cure periods.

Storage and Handling

Eracure SA300 is 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 MSD'S for further information.

Health and Safety

Use caution when handling **Eracure SA300** as with any aromatic diamine. Always wear suitable gloves and glasses when handling. Use in a well ventilated area.

Toxicological testing for **Eracure SA300** dermally to rabbits (LD50 > 2000 mg/kg).

Please consult the MSDS for further information.