

## Casting Epoxy Resin (XDX054-3)

### Product Description

XDX054-3 Part A epoxy resin reacts rapidly with XDX054-3 Part B to form a semirigid epoxy resin. XDX054-3 has been formulated for use in casting sections up to 75mm where a product that can cure in cold, damp conditions is required.

### Technical Specification

#### 1. Physical Properties

Property	Minimum	Maximum	Units
Gel Time (500g 20°C 10mm section)	110	130	Minutes
Full Cure (500g 20°C 10mm section)	24	36	Hours
Hardness at full cure	50	60	Shore D

#### 2. Typical Properties

Property		Typical Value	Units
Colour	Part A	Off-white	-
	Part B	Straw	-
	Mixed	Off-white	-
S.G.	Part A	1.8	-
	Part B	0.98	-
	Mixed	1.6	-
Gel Time (500g 20°C 10mm section)		120	Minutes
Full Cure (500g 20°C 10mm section)		36	Hours
Hardness at full cure		55	Shore D

#### 3. Mix Ratio

By Weight: 5.00 Parts A : 1.00 Part B  
 By Volume: 2.75 Parts A : 1.00 Part B

The components should be measured to an accuracy of 2% or better. Care should be taking when measuring by volume as this is an inherently inaccurate method unless specific volumetric measuring equipment is used.

#### 4. Preparation of Components

Part A must be thoroughly mixed prior to removal from the container, especially after prolonged periods of storage. Part B requires no preparation and may be used directly from the tin.

The components may be mixed and cast at room temperature and require no pre-warming prior to use. If the mould needs to be pre-warmed details will be given in the PREPARATION OF MOULDS section. If the product requires a postcure details will be given in the METHOD OF USE section.

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### 5. Method of Use

#### 5.1 Mixing

The components should be mixed together thoroughly by hand use a flat blade such as a palette knife or with a Jiffy type mixer if using a drill. The mixing should be carried out with care to avoid the inclusion of air and also to ensure that material on the sides and bottom of the vessel is removed and mixed in. To avoid patches of unmixed components in the finished product the mixed material may then be transferred to a second container and mixed again. Please note that increasing the quantity of mix or working at higher ambient temperatures (eg. in the summer) can reduce the pot life of the material. Where possible trials should be carried out to establish these parameters.

#### 5.2 Pouring

Care during pouring is essential to avoid entrapped air. Pour the material slowly allowing it to flow gently over the mould surface and to fill cavities and channels from the bottom up. Take care not to scrape the sides of the mixing vessel to remove the last of the product. This very frequently results in an undercured or soft area in the finished casting.

#### 5.3 Postcure

This material will cure satisfactorily at ambient temperatures.

## General Information

### 1. Handling and Storage

The relevant Safety Data Sheets should be read carefully before using this material. Good housekeeping is important with this material as with all chemicals. Spillages should be wiped up immediately and containers wiped clean after use. The components should be stored in their original containers in a dry place at 5-25°C. Both components have a minimum shelf life of 12 months from the date of manufacture when stored correctly in unopened containers.

### 2. Health and Safety

The Safety Data Sheet provides information on the health and safety aspects of this material. Please contact Atlas Polymers Limited if you do not have a Safety Data Sheet for each of the components of this material.

The Part A epoxy resin component is classified as IRRITATING to eyes and skin according to the requirements of the CHIP regulations. In addition it may cause sensitisation by skin contact. Care should be taken to avoid direct contact and gloves, goggles and impervious overalls should be worn. The Part B hardener is classified as CORROSIVE. Part B is harmful in contact with skin, causes burns and may cause sensitisation by skin contact. Avoid direct contact by means of gloves, goggles and impervious overalls.

### 3. Suitability for Use

The information in this datasheet is given to the best of our knowledge and belief but without warranty or liability.

The user must establish the suitability of the material for the intended application by carrying out any appropriate tests.

Finished products produced from any batch of our materials must be subjected to comprehensive standards of quality control by the user.

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