

Technical Data Sheet



Cured Properties

Properties	Standard	Units	Result (Full Cure)
Hardness 4 hours 24 hours 7 days	BS 2782: Part 3: Method 365B	Shore A	25 40 50
Linear Shrinkage	500 x 50 x10 mm	%	< 0.20
Tensile Strength	BS 2782: Part 3: Method 320B	MPa	1.60 – 2.00
Elongation at break	BS 2782: Part 3: Method 320B	%	100 – 140
Tear Strength	BS 903: Part A3	KN/m	9.00 – 10.00

Mould Preparation

Ensure that the mould is clean and dry and if the mould is made from metal, wood or resin, use a release agent such as RELEASE AGENT R7. Wooden moulds should be sealed well before casting. For flexible moulds, we recommend ALCHEMIX RTV Silicone Rubber, please contact our technical department for more advice.

Mixing Instructions

Shake the ALCHEMIX PU 3501A container thoroughly in order to homogenize the resin. Ensure that both components are at least 20°C before mixing.

ALCHEMIX PU 3501A should be mixed with ALCHEMIX PU 3501B according to the indicated mixing ratio. Both components should be thoroughly mixed, care should be taken to avoid air entrapment and make certain that material at bottom and sides of container is thoroughly stirred into centre. For best results, the material should be degassed at this point. After thorough mixing and vacuuming, the material should be poured into the mould. To avoid air entrapment, pour the material slowly, and into one place in the mould. In order to obtain a bubble free unit, the material should be degassed after mixing and pouring. Mixing, pouring and degassing must be completed within the stated pot life. When there are several facets to mould, the casting may be undertaken piecemeal, until the whole is cast. The time between successive castings should not be more than one hour to enable full adhesion between layers.

Curing

The casting can generally be demoulded in 12 – 24 hours at room temperature. The precise demould time will vary with the casting thickness, as thin section units will cure slower than thicker section units.

Storage

ALCHEMIX PU 3501A and B should be stored in original, unopened containers between 20 and 25°C. ALCHEMIX PU 3501B may crystallise partially or completely if not stored at above 20°C. Like all polyurethanes, both components are moisture sensitive. Moisture absorption will cause excessive aeration in cast parts. KEEP THE PACKING TIGHTLY SEALED WHEN NOT IN USE.

If stored under the above conditions, ALCHEMIX PU 3501A and B will have a shelf life of 6 months, from the date of production.

Packaging

ALCHEMIX PU 3501A is supplied in 10kg containers.
ALCHEMIX PU 3501B is supplied in 1kg containers.

(Please contact Alchemie Ltd for bulk supply)

Further Information

All data listed relates to typical values. This data should not be considered a product specification.

Our technical advice, whether verbal, or in writing is given in good faith, but without warranty – this also applies where proprietary rights of third parties are involved. It does not release you from the obligation to test the products supplied by us as to their suitability for the intended process and use.

Before using any of our products, users should familiarise themselves with the relevant Technical and MSDS provided by Alchemie Ltd.

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Alchemie Limited

Alchemie Ltd develop, formulate and distribute Epoxy Resins, Polyurethane Resins, Silicones, Model Boards and Sheet Wax for use in the following applications:

- Electrical encapsulation
- Rapid Prototyping
- Prototypes
- Casting
- Gel Coating
- Laminating
- Model Making
- Master Models
- Flexible and rigid mould making

We offer fast service, technical support, development expertise, innovative products, diverse knowledge and experience.

We are a well-established company, with a high level of investment and experience. We implement BS EN ISO 9001.

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