

Modelboard Sealant MS 651

*High Gloss Sealant for M651 Modelboard
80 – 85 Shore D Hardness*

Modelboard Sealer MS 651 is a two component epoxy system designed to coat M651 modelboard and other similar surfaces. The product is easily applied by brush and cures quickly at room to give a high gloss coating.

Special Features

- High gloss finish
- Room temperature cure
- No further processing required
- Easy to apply

Mix Ratio

MS 651-EP : MS 651-H
By Weight 100 : 42

Product Data

Property	Units	MS 651-EP	MS 651-H	Mix
Material	-	Epoxy Resin	Formulated Polyamine	Epoxy
Appearance	-	Clear Liquid	Clear Liquid	Clear Liquid
Viscosity (25 °C)	mPa.s	1300 – 1800	400 – 700	1000 – 1500
Density (25 °C)	g/cm ³	1.12 – 1.17	0.97 – 1.02	1.07 – 1.12
Pot life (200g, 25 °C)	Minutes	-	-	15 – 20
Cure Time (1mm thick, 25 °C)	Hours	-	-	4
Full Cure (1mm thick, 25 °C)	Days	-	-	24

Cured Properties

Properties	Standard	Units	Result (Full Cure)
Hardness	BS 2782: Part 3: Method 365B	Shore D	87 – 92
Tensile Strength	BS 2782: Part 3: Method 320A	MPa	TBC
Elongation at break	BS 2782: Part 3: Method 320A	%	TBC
Flexural Strength	BS 2782: Part 3: Method 335A	MPa	TBC
Flexural Modulus	BS 2782: Part 3: Method 335A	MPa	TBC
Heat Distortion Temperature (HDT)	TMA No post cure	°C	50 – 55
Heat Distortion Temperature (HDT)	TMA Post cured to 100°C	°C	90 – 95

Surface Preparation

Ensure that the surface to be coated is clean and free from any contamination such as dirt, dust or grease. Ensure the environment in which the pattern is to be sprayed is free from airborne contaminants such as dust. We recommend spraying in a pressurised spray booth.

MS 651 is designed to be used with Modelboard M651, if using with a more porous board, it may necessary to seal the board prior to the application of MS 651.

Application Method

Thoroughly mix the resin and the hardener according to the indicated mixing ratio, avoiding air entrapment and make certain that the material at the bottom and sides of the container is well stirred into the centre. The mixed material should be used within the stated pot life. Please note that the pot life is mentioned for 200g test sample mixing larger quantities will shorten the pot life similarly smaller quantities will lengthen the pot life. The mixed product can then be brushed onto the surface of the board. Thinner layers will take longer to cure than thicker layers.

Post Cure

After full cure at room temperature, the sealed board can be used without any further treatment. However, a full post cure will improve the heat resistance and mechanical properties. We recommend a post cure schedule of 1 hour at 40°C, 1 hour at 60°C, 1 hour at 80°C and 1 hour at 100°C

Surface Finish

MS 651 will cure to give a high gloss finish without any further work. However, if necessary, the coating can be cut back using 600 grade wet and dry paper (used wet). To renew the high gloss, smooth finish, sequentially increase grade of wet and dry paper to 1200 grade ensuring each stage is free of contamination from the rougher grade. Finally, polish using a standard series of paint polishing compounds.

Storage

Alchemix MS 651 should be stored in original, unopened containers between 15 and 25°C. Always reseal containers immediately after use.

If stored under the above conditions, MS 651 will have a shelf life of 12 months, from the date of production.

Packaging

MS 651-EP is supplied in 1kg containers.
MS 651-H is supplied in 420g containers.

(Please contact Alchemie Ltd for bulk supply)

Further Information

This data is not to be used for specifications. Values listed are for typical properties and should not be considered minimum or maximum.

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.

Alchemie Limited

Alchemie Ltd develops, 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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