

# Technical Data Sheet

---

## Model Board M720

### *0.73 g/cm<sup>3</sup> Epoxy Model Board*

Model Board M720 is an epoxy board material with very high temperature resistance and very low coefficient of thermal expansion making it ideal for applications where dimensional stability is essential.

---

### **Applications**

- Prepreg lay up tools
- Vac form tools
- Laminating patterns and tools

### **Technical Data**

Property	Standard	Units	Typical Value
Colour	-	-	Blue
Coefficient of Thermal Expansion	DIN 53752-B	K <sup>-1</sup>	30 x 10 <sup>-6</sup>
Temperature Resistance	ISO 75	°C	170
Hardness	ISO 868	Shore D	73
Compressive Strength	DIN 53421	N/mm <sup>2</sup>	43
Flexural Strength	ISO 178	N/mm <sup>2</sup>	31
Density	ISO 845	g/cm <sup>3</sup>	0.73

Model Board M720 contains no halogens, plasticizer or solvent. Model Board M720 is manufactured fluorocarbohydrate-free and is physiologically harmless.

### **Board Measurements**

Product Code	Board Size (mm)
M720-2	1500 x 500 x 50
M720-3	1500 x 500 x 75
M720-4	1500 x 500 x 100

### **Storage**

Model Board M720 should be stored on a flat surface, in dry conditions, at a temperature between 18 – 25 °C. Variations in temperature should be avoided.

# Technical Data Sheet

---

## **Processing**

Boards of M720 can be combined using ALCHEMIX EP 5941 Model Board Adhesive. We recommend that boards are square and plane-parallel to ensure good glue joints.

## **Machining**

Use metal working tools, and a machining temperature of 20 – 25 °C.

When producing voluminous models from Model Board 720, we generally recommend to ensure that the material is not thicker than 10 cm (recommendation: milling the inside of the tool) to assure an even heating of the tool. This measure prevents the formation of cracks.

Machining epoxy boards with a laser may produce (depending on the processing temperature) visible sooty decomposition products, water vapour and carbon dioxide, as well as carbon monoxide and traces of phenols.

<b>Property</b>	<b>Units</b>	<b>Roughing</b>	<b>Finishing</b>
Type of tool	-	Finishing tools	Finishing tools
Tool diameter (d)	mm	80	80
Cutting speed (Vc)	m/sec	50	50
Speed (n)	min <sup>-1</sup>	12000	8000
Feed Speed	m/min	10	7.5
Tooth Speed (fz)	mm	0.21	0.21
Number of Teeth (z)	-	4	4
Cutting Depth (ae)	mm	6	0.5
Cutter Mark Length (fzeff)	mm	38	5-10

## **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. This material does not contain any fillers that release harmful dust during machining. Nevertheless the dust content in the air should not rise above 6 mg/m<sup>3</sup>. Safety procedures recommended by the vocational co-operative of the chemical industry should be complied with. The article is not a regulatory product according to ICC regulations.

# Technical Data Sheet

---

In accordance with general local and national regulations waste is to be disposed by incineration in authorised places or conveyed to authorised tips (EAK 120105).

## **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.

**Alchemie® and Alchemix® are registered Trademarks of Alchemie Ltd, Warwick Road, Kineton, Warwick, England, CV35 0HU, England, United Kingdom. Ph: +44 (0)1926 641600; FAX: +44 (0)1926 641698**