

## Description

Model Board M651 is a board and block material with very fine structure and smooth surface. It is easy to varnish and has excellent processing properties.

## Features

- Very fine structure
- Smooth and paintable surface
- Excellent processing properties

## Applications

- Master and copy models
- Cubing and data models
- General modelling

## Technical Data

|                                  | Typical Value                      |
|----------------------------------|------------------------------------|
| Colour                           | Brown                              |
| Temperature Resistance           | 68 °C                              |
| Coefficient of Thermal Expansion | $40 \times 10^{-6} \text{ K}^{-1}$ |
| Hardness                         | 70D                                |
| Density                          | $0.70 \text{ gcm}^{-3}$            |
| Compressive Strength             | $26 \text{ Nmm}^{-2}$              |
| Flexural Strength                | $30 \text{ Nmm}^{-2}$              |
| Fire Protection Classification   | B2                                 |
| Thermal Conductivity             | 0.11 W/m.K                         |

Model Board M651 contains no halogens, plasticizer or solvent, it is manufactured fluorocarbohydrate free and is physiologically harmless.

## Processing

Boards of M651 can be combined using Model Board Adhesive MG 651. We recommend that boards are square and plane-parallel to ensure good glue joints

## Machining

Model Board M651 can be machined with metal working tools and should be machined at 20 – 25°C.

Machining polyurethane boards with a laser may produce (depending on the processing temperature) visible sooty decomposition products, water vapor and carbon dioxide as well as carbon monoxide and nitrogenous compounds, including nitrogen oxides and traces of hydrogen cyanide and isocyanate vapours.

## Milling Parameters

|                            | Roughing                    | Finishing                   |
|----------------------------|-----------------------------|-----------------------------|
| Type of Tool               | Finishing Tools<br>d = 80mm | Finishing Tools<br>d = 80mm |
| Tool Diameter (d)          | 80 mm                       | 80 mm                       |
| Cutting Speed (Vc)         | 50 m/sec                    | 50 m/sec                    |
| Speed (n)                  | $12000 \text{ min}^{-1}$    | $8000 \text{ min}^{-1}$     |
| Feed Speed                 | 10 m/min                    | 7.5 m/min                   |
| Tooth Speed (fz)           | 0.21 mm                     | 0.21 mm                     |
| Number of Teeth (z)        | 4                           | 4                           |
| Cutting Depth (ae)         | 4 mm                        | 0.5 mm                      |
| Cutter Mark Length (fzeff) | 38 mm                       | 5 mm                        |

## Storage and Transport

Model Board M651 should be stored on a flat surface, in dry conditions, at a temperature between 18 – 25°C. Variations in temperature should be avoided during storage.

# Model Board M651



## Board Sizes

| Product Code | Dimensions (mm)  |
|--------------|------------------|
| M651-10      | 1500 x 500 x 10  |
| M651-1       | 1500 x 500 x 25  |
| M651-30      | 1500 x 500 x 30  |
| M651-2       | 1500 x 500 x 50  |
| M651-3       | 1500 x 500 x 75  |
| M651-4       | 1500 x 500 x 100 |
| M651-6       | 1500 x 500 x 150 |
| M651-21      | 1500 x 600 x 25  |
| M651-22      | 1500 x 600 x 50  |
| M651-23      | 1500 x 600 x 75  |
| M651-24      | 1500 x 600 x 100 |

Surfaces are machined parallel.

## 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.

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Before using any of our products, users should familiarise themselves with the relevant Technical Data Sheet (TDS) and Safety Data Sheets (SDS) 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. 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).

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