

Description

Model Board M1007 is a board and block material with good heat resistance and low coefficient of thermal expansion. The Model Board M1007 has a density of 1.20 g/cm³.

Applications

- Fixtures and gauges
- Tools for serial production of small batch sizes (e.g., draw die moulds and foam moulds)
- Master and copy models
- Galvano models with high mechanical stress
- Foundry models with high mechanical stress
- Laminating tools

Technical data

	Conditions	Typical Value
Colour	-	Ivory
Coefficient of Thermal Expansion	K ⁻¹	50 x 10 ⁻⁶
Temperature Resistance	°C	75
Hardness	Shore D	80
Compressive Strength	N/mm ²	70
Flexural Strength	N/mm ²	65
Wear (at defined parameters)	mm ³	480
Density	g/cm ³	1.20
Notched Impact Strength	kJ/m ²	15.4
Thermal Conductivity	W/m.K	0.24
Modulus of Elasticity	MPa	2400

Model Board M1007 contains no halogens, plasticizer or solvent. Model Board M1007 is manufactured fluorocarbohydrate-free and is physiologically harmless.

Machining

Model Board M1007 should be processed using metal working tools, a large receptacle for removing shavings is required.

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.

Boards of M1007 can be combined using Alchemix EP 5941.

Milling Parameters

	Units	Roughing	Finishing
Type of Tool	-	Finishing tools d=80mm	Finishing tools d=80mm
Tool Diameter [d]	mm	80	80
Cutting Speed [Vc]	m/sec	50	50
Speed [n]	1/mm	12000	8000
Feed Speed	m/mm	6	7.5
Tooth Speed [fz]	mm	0.13	0.13
Number of Teeth [z]	-	4	4
Cutting Depth [ae]	mm	2.5	0.5
Cutter Mark Length [fzeff]	mm	38	5

Storage and Transport

Model Board M1007 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.

Board sizes

Product Code	Board size (mm)
M1007-22	1000 x 500 x 50
M1007-23	1000 x 500 x 75
M1007-24	1000 x 500 x 100
M1007-32	1500 x 500 x 50
M1007-33	1500 x 500 x 75
M1007-34	1500 x 500 x 100

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 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/m³. 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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