

Technical Data Sheet

Freeman M-4600 Modeling Board

Description

The Freeman M-4600 board is an ideal material for styling prototypes, master models, tooling aids, and automotive die models. The M-4600 may also be used for less demanding prototype vacuum-forming tools.

Physical Properties

Color	Brown
Hardness (Shore D)	68
Density (g/cc)	0.74
Density (lb./ft.3)	46.5
Compression Strength (psi)	3,762
Flexural Strength (psi)	5,150
Flexural Modulus (psi)	154,200
Deflection Temp. (°F)	172
Coefficient Thermal Expansion (in./in./°F)	46.8×10^{-6}

Machining

Machining parameters listed are starting points. Cutter type, material, spindle speed, feed rates, and other factors will determine machining results.

Roughing Speed	Roughing Feed	Finishing Speed	Finishing Feed
1,600 RPM	40 IPM	10,000 RPM	100 IPM

Cutters: Roughing 1" Ball End mill, 4-Flute, Carbide

Finishing 5/8" Ball End mill, 2-Flute, Carbide

Depth: Roughing Varies from 1/4" to 2-1/2" deep with 40% stepover

Finishing 1/8" deep leaving 0.002" scallop height

The user shall determine the suitability of this product for their application and assumes all risks and liabilities associated with the use of this product. The exclusive remedy for all proven claims is replacement of our materials only and in no event shall Freeman Mfg. & Supply Co. be liable for special, incidental, or consequential claims.

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