FREEMAN

Technical Data Sheet

Freeman M-4700 Modeling Board

Description

Freeman M-4700 is a medium-high density modeling board that offers excellent machinability and good temperature resistance. With a Tg of 199°F and the ability to render sharp, accurate designs, the 4700 is well suited to applications ranging from master models to laminate molds.

Physical Properties

Color	Turquoise
Hardness (Shore D)	69
Density (g/cc)	0.75
Density (lb./ft.^{3})	47
Compression Strength (psi)	4,786
Flexural Strength (psi)	5,076
Flexural Modulus (psi)	184,198
Glass Transition Temperature (°F)	199
Deflection Temperature (°F)	187
Coefficient of Thermal Expansion (in/in/°F)	31.1×10^{-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

READ SAFETY DATA SHEETS AND PRODUCT LABELS BEFORE USING PRODUCT