

**PYROPEL® MD-50**

High Compressive Strength, 550°F Insulation Board

Rev. 11/19

Pyropel MD-50 is a rigid, high compressive strength polyimide hardboard. It can be used continuously under compressive loads up to 550°F. It deforms slightly under pressure to conform to small surface irregularities. Pyropel MD-50 is designed as a low cost polyimide plate where temperature, off gassing, and compressive strength are the key properties required. Applications like molten solder pallets, thermal insulation washers or dies and presses are typical uses.

Pyropel MD-50 is a three dimensionally reinforced fiberboard with high shear strength and durability. It can be machined easily with a high speed milling, drilling or cutting tools. It cuts cleanly and quickly.

Pyropel MD-50 has excellent chemical resistance to most strong acids, solvents, fuels and lubricants. It possesses excellent radiation resistance. It will wick fuels or oils slightly, however, if not faced or sealed to prevent absorption.

TYPICAL PROPERTIESSIEnglish

Form:	Rigid Fiberboard	Rigid Fiberboard
Color:	Light Brown	Light Brown
Density:	.79g/cm <sup>3</sup>	50 lb/ft <sup>3</sup>
Glass Transition Temp (T <sub>g</sub> ):	315°C	600°F
Tensile Modulus (ASTM D638)	750 MPa	110,000 psi
Tensile Elongation	8.6%	8.6%
Tensile Break Stress	18 MPa	2600 psi
Compressive Modulus (ASTM D695):	320 MPa	46,000 psi
Service Temperature Limit:		
Continuous:	285°C	550°F
Combustion/Burn Data:		
Limiting Oxygen Index (LOI)	40%	40%

## Thermal Conductivity (k) (ASTM-C518)

@ 25°C (77°F)	0.070 $\frac{W}{m \cdot ^\circ K}$	0.49 $\frac{BTU \cdot in}{Hr \cdot ft^2 \cdot ^\circ F}$
@ 93°C (200°F)	0.074	0.51
@ 149°C (300°F)	0.080	0.56
@ 204°C (400°F)	0.089	0.62

## SUGGESTED USES

Pyropel MD-50 is a tough, durable, easily machined fiberboard used in such applications like molten solder pallets, thermal insulation washers or dies and presses. The material is slightly compressible and will deform under compressive loading to conform to surface irregularities.

## AVAILABLE FORMS

Pyropel MD-50 is available in 2' x 2' and 2' x 3' panels in a range of thicknesses up to 5/16". Larger panels are available upon special request. Contact Pyropel, Inc. directly for pricing and availability.

## IMPORTANT NOTICE REGARDING THIS INFORMATION

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