TECHNICAL DATA SHEET

POLYPROPYLENE (PP-H)
Supplied in Sheet or Rod

Colour: Light grey

Characteristics

* High Tensile Strength
* Resistant to Stress Cracking
* Low Moisture Absorption
* Resistant to Organic Solvents
* Retains Properties at Elevated Temperatures

Description

Polypropylene is a lightweight heat-resistant, semi-rigid material ideally suited for use in applications at elevated temperature. In steam applications its low moisture absorption rate and resistance to staining makes it an excellent choice. High tensile strength coupled with impact resistance and high compressive strength allow it to be used in a multitude of structural applications. Polypropylene can easily be machined with wood or metal working tools into intricate shapes. Pieces can be joined by numerous welding techniques including both fusion and butt welding along with many other methods.

Forms Available

ROD
BUSHING
PLATE
COLOR

Typical Property Values

		Homopolymer	Co-Polymer
MECHANICAL @ 73°F			
Density		0.03	0.03
Tensile Strength	psi	4,800	4,800
Tensile Modulus of Elasticity	psi	195,000	
Tensile Elongation (at Break)	%	12	23
Flexural Strength	psi	7,000	5,400
Flexural Modulus of Elasticity	psi	180,000	160,000
Shear Strength	psi		
Compressive Strength, 10% Deformation	psi	7,000	6,000
Compressive Modulus of Elasticity	psi		
Hardness	Rockwell R	92	80
Izod Impact Strength, Notched	ft-lbs/in. of notch	1.90	7.50
Coefficient of Friction, Dynamic (Dry vs. Steel)			
Limiting PV (4 :1 Safety Factor Applied)	ft.lbs/in.^{2} min		
Wear Factor	in^3-min/ft.lbs. hr.		
Water Absorption 24 hrs	% by wt.	< 0.01	0.01
THERMAL			
Coefficient of Linear Expansion (-40°F to 300°F)	in./in./°F	6.2×10^{-5}	6.6×10^{-5}
Heat Deflection Temperature @264 psi	°F	125	110
Melting Point (Crystalline)	°F	327	327
Continuous Service Temperature in Air	°F	180	170
Thermal Conductivity	°F	.76 - .81	
ELECTRICAL			
Dielectric Strength, Short Term	Volts/mil	500 - 660	475
Surface Resistivity	Ohms/Sq.		
Dielectric Constant	1 MHz		
Dissipation Factor	1 MHz		0.0017