Polypropylene (PP-H)

Polypropylene Homopolymer

✓ Suitable for Food Contact

Material Type
PP Homopolymer

Form: Flat / Plate / Rod
Combustion: **HB / Flame Retardant (Special)**

MATERIAL DESCRIPTION

Polypropylene PP-H is a versatile thermoplastic that has the lowest density (0.91 g/cm³) among engineering plastics, but has exceptional resistance to acids, bases and chemicals. Thanks to its excellent weldability, it is widely used in the manufacturing of large-sized chemical tanks, galvanizing baths and ventilation ducts. Its water absorption is extremely low, its electrical insulation is high and its dielectric strength is strong.

MECHANICAL AND PHYSICAL PROPERTIES (ISO/ASTM)

Feature	Unit	Value	Feature	Unit	Value
Intensity	g/cm³	0.91	Shore D Hardness	—	**70 – 75**
Yield Stress	MPa	32	Friction Coefficient	—	**~ 0.30**
Yield Elongation	%	10	Melting Temperature	°C	**160 – 165**
Breaking Stress	MPa	25	Softening Temperature	°C	**~ 150**
Elongation at Break	%	50	Work. Gene. Coefficient	10^{-4} K^{-1}	**1.6**
Elasticity Modulus	MPa	1400	Dielek. Strength	kV/mm	**~ 50**
Impact Resistance	kJ/m²	Unbreakable	Surface Resistance	Ohm	**10^{14}**
Water Absorption (24h)	%	< 0.05	Service Temperature	°C	**0 / +100**

AREAS OF APPLICATION

Chemical Storage Tanks | Galvanization and Acid Baths | Ventilation Ducts | Pipe and Fitting Systems | Laboratory Equipment | Food Contact Parts | Wastewater Treatment

CHEMICAL RESISTANCE AND GENERAL PROPERTIES

It shows very high resistance to acids and bases; Withstands long-term exposure to dilute and concentrated acid, alkali and salt solutions. It also offers good resistance to organic solvents and oils. The most prominent advantage of PP-H is its excellent weldability; Large-sized tanks and constructions can be easily manufactured using the hot gas welding method. It is the lightest material among engineering plastics with its low density (0.91 g/cm³). Since UV resistance is limited, UV stabilized versions or pigmented types should be preferred for outdoor applications. It stands out as an economical and lightweight solution in corrosive environment applications in the petrochemical, galvanizing, construction and water treatment sectors.

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