

PP

PP 4220

POLYPROPYLENE RANDOM COPOLYMER PIPE GRADE (PP-R)

This is a pipe-grade polypropylene random copolymer produced by copolymerizing a small amount of ethylene within the propylene chain segments. Compared with a homopolymer of similar melt flow, the random-copolymer chemistry gives improved optical clarity (increased transparency and reduced haze), improved impact resistance, increased flexibility, and a lower melting/heat-fusion temperature, while retaining comparable chemical stability, water-vapor barrier performance, and low odor/taste characteristics. The very low melt flow rate gives the melt strength needed for pipe extrusion, and the resin has good creep resistance, excellent long-term aging resistance, impact resistance, and good extraction resistance at elevated temperatures.

Typical Application

- Cold and hot water pressure pipe
- Pipe fittings

Product Characteristics

- Good creep resistance
- Excellent long-term aging resistance
- Good impact resistance
- Good extraction resistance at high temperatures
- Low melting/heat-fusion temperature relative to homopolymer

Physical Properties

Properties	Test Method	Typical Value	Unit
Melt Flow Rate (230°C/2.16kg)	ASTM D1238	0.26	g/10 min
Tensile Stress at Yield	ASTM D638	25	MPa

1. The nominal properties reported herein are typical of the product and do not reflect normal testing variance; they should not be used for specification purposes.

2. Typical values per the producer's published family data; grade-specific certificate of analysis supplied per lot at order.

3. Full per-grade technical data and a certificate of analysis are supplied with each order.