

Petrothene® PP 52T12A

Equistar Chemicals, LP - Polypropylene Copolymer

Product Description

PETROTHENE PP 52T12A is a clarified polypropylene copolymer with antistat for use in injection molding applications. This resin exhibits good room temperature impact strength, good mold release properties, maintains excellent balance of strength and stiffness, and provides fast set-up. Typical applications include housewares, storage boxes, containers and vials.

Product Characteristics

Material Status	• Commercial: Active
Availability	• North America
Test Standards Available	• ASTM
Additive	• Antistatic
Features	• Antistatic • Impact Resistance, Good • Copolymer, Random • Food Contact Acceptable • Mold Release, Good
Uses	• Household Goods • Containers
Agency Ratings	• FDA 21 CFR 177.1520 ¹
Appearance	• Clear
Forms	• Pellets
Processing Method	• Injection Molding

Properties ²

Physical	Nominal Values (English)	Test Method
Melt Flow Rate (230 °C/2.16 kg - L)	12.0 g/10 min	ASTM D1238
Mechanical	Nominal Values (English)	Test Method
Tensile Modulus ³	200000 psi	ASTM D638
Tensile Strength @ Yield ³	5400 psi	ASTM D638
Tensile Elongation @ Yld ³	9.4 %	ASTM D638
Flexural Modulus ⁴	245000 psi	ASTM D790
Impact	Nominal Values (English)	Test Method
Notched Izod Impact (73 °F)	1.00 ft-lb/in	ASTM D256
Unnotched Izod Impact (0 °F)	4.00 ft-lb/in	ASTM D256
Gardner Impact (73 °F)	30.0 in-lb	ASTM D3029
Hardness	Nominal Values (English)	Test Method
Rockwell Hardness (R-Scale)	96	ASTM D785
Thermal	Nominal Values (English)	Test Method
DTUL @66psi - Unannealed	208 °F	ASTM D648

Additional Properties

The value listed as Unnotched Izod Impact, ASTM D256, was tested in accordance with ASTM D4812.

Processing Information

Injection Molding Parameters	Nominal Values (English)	Test Method
Rear Temperature	430 °F	
Middle Temperature	450 °F	
Front Temperature	470 °F	
Nozzle Temperature	470 °F	

Notes

¹ When used unmodified for the manufacture of food contact articles, Petrothene® PP 52T12A will comply with Food Additive Regulations FDA 21 CFR 177.1520 under the U.S. Food, Drug and Cosmetic Act. Such uses are subject to good manufacturing practices and any other limitations which are part of the statute or regulations. These should be consulted for complete details.

² Typical properties; not to be construed as specifications.

³ 2 in/min

⁴ 0.05 in/min