

CERTENE™ PRM-12C

Polypropylene Random Copolymer
Muehlstein

Message:

PRM-12C is a certified prime grade Clarified Injection Molding copolymer specially designed for thin-walled applications requiring excellent clarity and good impact resistance. PRM-12C exhibits medium-high flow rate, very good processability, rapid mold filling, fast cycle time, very good dimensional stability, low warpage, and good balance of mechanical properties. PRM-12C typical applications include high quality housewares where high clarity is a must, thin-wall high gloss rigid packaging, and high quality consumer articles. PRM-12C complies with FDA regulation 21CFR 177.1520 (a)(3)(i) / (c)3.1 + 3.2, and most international regulations concerning the use of Polypropylene in contact with food.

General Information			
Features	Good dimensional stability		
	Low warpage		
	Rigidity, high		
	Highlight		
	Impact resistance, good		
	Workability, good		
	Fast molding cycle		
	Medium liquidity		
	Definition, high		
	Compliance of Food Exposure		
	Random copolymer		
Uses	Thin wall packaging		
	Household goods		
	Consumer goods application field		
Agency Ratings	FDA 21 CFR 177.1520(a) 3 (i)		
	FDA 21 CFR 177.1520(c) 3.1		
	FDA 21 CFR 177.1520(c) 3.2		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density	0.900	g/cm ³	ASTM D1505
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	12	g/10 min	ASTM D1238
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	89		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ¹ (Yield, Injection Molded)	28.9	MPa	ASTM D638

Tensile Elongation ² (Yield, Injection Molded)	9.0	%	ASTM D638
Flexural Modulus - 1% Secant ³ (Injection Molded)	1170	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C, Injection Molded)	80	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (0.45 MPa, Unannealed, Injection Molded)	87.0	°C	ASTM D648
Vicat Softening Temperature	128	°C	ASTM D1525

Additional Information

All specimens were injection molded according to ASTM D2146 Type 1.

NOTE

1. 50 mm/min
2. 50 mm/min
3. 1.3 mm/min

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