

# CERTENE PHM-12

Polypropylene Homopolymer

## Product Description and Applications:

PHM-12 is a certified prime grade Polypropylene designed for injection molding of general purpose applications. PHM-12 combines a good balance of medium-high flow processability with good tensile strength, high stiffness and good contact clarity. PHM-12 applications include thin-walled containers, housewares, medical ware, caps, closures, toys, and housings for small electrical appliances. PHM-12 recommended processing temperature is between 210° to 230°C with mold at 20°-50°C. PHM-12 complies with FDA regulation 21CFR 177.1520 and with most international regulations concerning the use of Polypropylene in contact with food.

**Features** Clarity, High Flow, High, Food Contact Acceptable, General Purpose, Homopolymer , Processability, Good Stiffness, High Tensile Strength, High

**Uses** Caps, Containers, Thin-Walled, Electrical/Electronic Applications ,General Purpose, Household Goods, Housing, Electrical, Medical Applications, Toys

**Agency Ratings** FDA 21 CFR 177.1520 1

## ASTM and ISO Properties <sup>2</sup>

Physical	Nominal Value	Unit	Test Method
Density	0.905	g/cm <sup>3</sup>	ASTM D1505
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	12.0	g/10 min	ASTM D1238
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength @ Yield (Injection Molded) <sup>3</sup>	5080	psi	ASTM D638
Tensile Elongation @ Yld (Injection Molded) <sup>3</sup>	10	%	ASTM D638
Flexural Modulus (Injection Molded) <sup>4</sup>	1% Secant: 236000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73 °F, Injection Molded)	0.600	ft-lb/in	ASTM D256
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	90		ASTM D785
Thermal	Nominal Value	Unit	Test Method
DTUL @66psi - Unannealed (Injection Molded)	207	°F	ASTM D648
Vicat Softening Point	311	°F	ASTM D1525

### Additional Properties

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

## Processing Information

Injection	Nominal Value	Unit
Processing (Melt) Temp	210 to 230	°F
Mold Temperature	20.0 to 50.0	°F

1When used unmodified for the manufacture of food contact articles, CERTENETM PHM-12 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.

2Typical properties: these are not to be construed as specifications.

32.0 in/min

40.051 in/min