

# CERTENE™ PHM-12AN

Polypropylene Homopolymer  
Muehlstein

Message:

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

General Information			
Additive	Antistatic property		
Features	Rigidity, high		
	High tensile strength		
	Homopolymer		
	Antistatic property		
	Workability, good		
	High liquidity		
	Definition, high		
	Compliance of Food Exposure		
Uses	General		
	Thin wall container		
	Electrical/Electronic Applications		
	Electrical housing		
	Shield		
	Household goods		
	General		
	Toys		
Agency Ratings	Medical/nursing supplies		
	FDA 21 CFR 177.1520		
	Forms		
	Particle		
	Processing Method		
	Injection molding		
	Physical	Nominal Value	Unit
	Density	0.905	g/cm <sup>3</sup>
Test Method	ASTM D1505		
	Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	12	g/10 min
	ASTM D1238		
	Hardness	Nominal Value	Unit
	Rockwell Hardness (R-Scale)	95	
	ASTM D785		
	Mechanical	Nominal Value	Unit
	Tensile Strength <sup>1</sup> (Yield, Injection Molded)	37.2	MPa
	ASTM D638		



Tensile Elongation <sup>2</sup> (Yield, Injection Molded)	9.0	%	ASTM D638
Flexural Modulus - 1% Secant <sup>3</sup> (Injection Molded)	1770	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C, Injection Molded)	35	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (0.45 MPa, Unannealed, Injection Molded)	116	°C	ASTM D648
Vicat Softening Temperature	155	°C	ASTM D1525

#### Additional Information

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

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

#### NOTE

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

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#### Recommended distributors for this material

### Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

