

# CERTENE™ PHM-5A

Polypropylene Homopolymer  
Muehlstein

Message:

PHM-5A is a certified prime grade Polypropylene specially designed for extrusion and injection molding applications. PHM-5A contains antistatic and combines good processability and high thermal stability, with medium flow, high tensile strength, good stiffness and good contact clarity. PHM-5A applications include drinking straws, small profiles, housewares, toys, and technical parts subject to normal stresses. PHM-5A recommended processing temperature is between 210° to 230°C. PHM-5A complies with FDA regulation 21CFR 177.1520 and with most international regulations concerning the use of Polypropylene in contact with food. Specific certificates are available upon request.

General Information			
Additive	Antistatic property		
Features	Rigid, good		
	High tensile strength		
	Homopolymer		
	Antistatic property		
	Workability, good		
	Medium liquidity		
	Definition, high		
	Thermal stability, good		
Uses	Compliance of Food Exposure		
	Industrial components		
	Household goods		
	Toys		
	Profile		
Agency Ratings	Beverage straw		
	FDA 21 CFR 177.1520		
Forms	Particle		
Processing Method	Extrusion		
	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density	0.903	g/cm³	ASTM D1505
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	5.0	g/10 min	ASTM D1238
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	90		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength <sup>1</sup> (Yield, Injection Molded)	33.8	MPa	ASTM D638

Tensile Elongation <sup>2</sup> (Yield, Injection Molded)	11	%	ASTM D638
Flexural Modulus - 1% Secant <sup>3</sup> (Injection Molded)	1380	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C, Injection Molded)	37	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (0.45 MPa, Unannealed, Injection Molded)	93.0	°C	ASTM D648
Vicat Softening Temperature	151	°C	ASTM D1525
Additional Information			
All specimens were injection molded according to ASTM D2146 Type 1.			
Injection	Nominal Value	Unit	
Processing (Melt) Temp	98.9 - 110	°C	
NOTE			
1.	50 mm/min		
2.	50 mm/min		
3.	1.3 mm/min		

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#### Recommended distributors for this material

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