

MARPOL® HMW 1002 Powder

Marco Polo International, LLC - High Density (HMW) Polyethylene

Sunday, December 17, 2023

General Information

Product Description
MARPOL® HMW 1002 is a high molecular weight high density polyethylene copolymer in powder form. It has a combination of excellent processability, melt strength, high impact strength, chemical resistance, and high stress cracking resistance.

General			
Material Status	Commercial: Active		
Availability	Africa & Middle EastAsia Pacific	EuropeLatin America	North America
Features	Chemical ResistantCopolymerExcellent Processability	Good Melt StrengthHigh DensityHigh ESCR (Stress Crack Resist.)	High Impact ResistanceHigh Molecular Weight
Forms	• Powder		

ASTM & ISO Properties ¹				
Physical	Nominal Value	Unit	Test Method	
Density	0.953	g/cm ³	ASTM D4883	
Melt Mass-Flow Rate (190°C/21.6 kg)	2.0	g/10 min	ASTM D1238	
Environmental Stress-Cracking Resistance (ESCR)			ASTM D1693B	
100% Igepal	> 1000	hr		
Mechanical	Nominal Value	Unit	Test Method	
Tensile Strength (Yield)	20.7	MPa	ASTM D638	
Tensile Elongation (Break)	1100	%	ASTM D638	
Flexural Modulus	1030	MPa	ASTM D790	
Impact	Nominal Value	Unit	Test Method	
Tensile Impact Strength (23°C)	420	kJ/m ²	ASTM D1822	
Thermal	Nominal Value	Unit	Test Method	
Brittleness Temperature	<-76.1	°C	ASTM D746	
Vicat Softening Temperature	127	°C	ASTM D1525	

Notes

¹ Typical properties: these are not to be construed as specifications.



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