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 East • Asia Pacific	• Europe • Latin America	• North America
Features	• Chemical Resistant • Copolymer • Excellent Processability	• Good Melt Strength • High Density • High ESCR (Stress Crack Resist.)	• High Impact Resistance • High Molecular Weight
Forms	• Powder		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	0.953	g/cm³	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/m²	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.