



MARPOL® HDB 503

Marco Polo International, LLC - High Density Polyethylene

Wednesday, July 12, 2023

General Information

Product Description

Product Description: Exceptional stress crack resistance. Good stiffness and impact strength.

Applications: Food packaging, household and industrial chemicals, bleach, detergents, and pharmaceutical packaging.

MARPOL HDB 503 can- in principle- be used in food contact applications in the USA (FDA) and Canada (HPB). Migration and use limitations may apply.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Food Contact Acceptable • Good Impact Resistance	• Good Stiffness • High Density	• High ESCR (Stress Crack Resist.)
Uses	• Blow Molding Applications • Bottles	• Food Packaging • Packaging	• Pharmaceutical Packaging
Agency Ratings	• FDA Food Contact	• HPB (Canada) Food Contact	
Processing Method	• Blow Molding		

ASTM & ISO Properties¹

Physical	Nominal Value	Unit	Test Method
Density	0.945	g/cm ³	ASTM D1505
Melt Mass-Flow Rate (190°C/2.16 kg)	0.35	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR)	1000	hr	ASTM D1693
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	24.0	MPa	ASTM D638
Flexural Modulus	1040	MPa	ASTM D790

Notes

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