



MARPOL® HDB 504

Marco Polo International, LLC - High Density Polyethylene

Tuesday, July 25, 2023

General Information

Product Description

MARPOL HDB 504 is a high density polyethylene blow molding resin with good stress crack resistance and excellent stiffness.

Recommended Applications: Products requiring excellent environmental stress crack resistance (ESCR), agricultural chemical bottles and other products processed with continuous extrusion blow molding equipment.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Food Contact Acceptable	• High Density	• High ESCR (Stress Crack Resist.)
Uses	• Agricultural Chemicals Bottles • Bottles	• Food Packaging • Industrial Applications	• Personal Care
Agency Ratings	• FDA 21 CFR 177.1520(c) 2.1	• FDA 21 CFR 177.1520(c) 2.2	
Processing Method	• Extrusion Blow Molding		

ASTM & ISO Properties¹

Physical	Nominal Value	Unit	Test Method
Density	0.954	g/cm ³	ASTM D4883
Melt Mass-Flow Rate			ASTM D1238
190°C/2.16 kg	0.20	g/10 min	
190°C/21.6 kg ²	22	g/10 min	
Environmental Stress-Cracking Resistance (ESCR)			ASTM D1693
100% Igepal	75.0	hr	
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	27.6	MPa	ASTM D638
Tensile Elongation (Break)	600	%	ASTM D638
Flexural Modulus	1380	MPa	ASTM D790

Notes

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

² HLMI