



MARPOL® HDM 533

Marco Polo International, LLC - High Density Polyethylene Copolymer

Tuesday, July 25, 2023

General Information

Product Description

MARPOL® HDM 533 is a narrow molecular weight hexene copolymer designed to maximize injection molding speed and productivity in thin wall articles. Lower processing temperatures enable production of products free of taste and odor for food and beverage packaging.

Recommended Applications: Food packaging containers, food service trays, houseware articles, housewares, and toys.

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Copolymer • Hexene Comonomer	• Low to No Taste • Narrow Molecular Weight Distribution	• Odorless
Uses	• Food Containers • Food Packaging	• Household Goods • Thin-walled Parts	• Toys
Processing Method	• Injection Molding		

ASTM & ISO Properties¹

Physical	Nominal Value	Unit	Test Method
Density	0.950	g/cm³	ASTM D4883
Melt Mass-Flow Rate (190°C/2.16 kg)	33	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR) 10% Igepal, F50	< 2.00	hr	ASTM D1693B
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	21.8	MPa	ASTM D638
Tensile Elongation (Break)	56	%	ASTM D638
Flexural Modulus - 1% Secant	752	MPa	ASTM D790B
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (-40°C)	45	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 0.45 MPa, Unannealed	56.1	°C	ASTM D648
Deflection Temperature Under Load 1.8 MPa, Unannealed	37.8	°C	ASTM D648
Peak Melting Temperature	131	°C	ASTM D3418

Notes

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