MARPOL® LL4M 850

Marco Polo International, LLC - Linear Low Density Polyethylene

Thursday, January 4, 2024

General Information

Product Description

Applications include freezer lids, housewares, closures, dispensers, protective caps. Compounding this resin offers outstanding toughness and tear resistance in freezer applications.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Good Tear Strength • Low Density	• Low Temperature Resistant • Low Temperature Toughness	
Uses	• Caps • Closures	• Household Goods • Lids	• Low Temperature Applications

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	0.926	g/cm³	ASTM D4883
Melt Mass-Flow Rate (190°C/2.16 kg)	50	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR)			ASTM D1693B
10% Igepal, F50	< 1.00	hr	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength (Yield)	11.2	MPa	ASTM D638
Tensile Elongation (Break)	90	%	ASTM D638
Flexural Modulus - 1% Secant	265	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Tensile Impact Strength (-40°C)	222	kJ/m²	ASTM D1822
Thermal	**Nominal Value**	**Unit**	**Test Method**
Brittleness Temperature	< -70.0	°C	ASTM D746
Vicat Softening Temperature	91.8	°C	ASTM D1525
Peak Melting Temperature	123	°C	ASTM D3418

Notes

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