

Marlex® HHM 5502BN

High Density Polyethylene
Saudi Polymers Company



Technical Data

Product Description

This high molecular weight hexene copolymer is tailored for light blow moulded containers that require:

- Excellent stiffness
- Exceptional processability

Typical blow moulded applications for HHM 5502BN include:

- Household chemicals
- Industrial chemicals
- Pharmaceuticals
- Toolboxes
- Furniture

General

Material Status	• Commercial: Active		
Literature ¹	• Technical Datasheet (English)		
Search for UL Yellow Card	• Marlex®		
Availability	• Africa & Middle East	• Asia Pacific	• Europe
Features	• Copolymer	• Good Processability	• Hexene Comonomer
	• Food Contact Acceptable	• Good Stiffness	• High Molecular Weight
Uses	• Blow Molding Applications	• Household Goods	• Tool/Tote Box
	• Containers	• Industrial Containers	
	• Furniture	• Pharmaceuticals	
Agency Ratings	• ASTM D 4976-PE235	• EU No 10/2011	
	• DMF Unspecified Rating	• FDA 21 CFR 177.1520(c) 3.2a	
Forms	• Pellets		
Processing Method	• Blow Molding		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.955 g/cm ³	0.955 g/cm ³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.35 g/10 min	0.35 g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR)			ASTM D1693B
100% Igepal, Compression Molded, F50	35.0 hr	35.0 hr	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength ³ (Yield, Compression Molded)	3920 psi	27.0 MPa	ASTM D638
Tensile Elongation ³			ASTM D638
Break, Compression Molded	600 %	600 %	
Flexural Modulus - Tangent ^{4, 5} (Compression Molded)	199000 psi	1370 MPa	ASTM D790
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Durometer Hardness			ASTM D2240
Shore D, Compression Molded	63	63	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed, Compression Molded	174 °F	79.0 °C	
Brittleness Temperature ⁶	< -103 °F	< -75.0 °C	ASTM D746A

Additional Information

The physical properties were determined on compression moulded specimens that were prepared in accordance with Procedure C of ASTM D4703, Annex A1.



Notes

¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² Typical properties: these are not to be construed as specifications.

³ Type IV, 2.0 in/min (51 mm/min)

⁴ 0.50 in/min (13 mm/min)

⁵ 16:1 span:depth

⁶ Type I specimen

