

Safrene® (High Density PolyEthylene)

Technical Data Sheet
F 7650
High Density Polyethylene for Blow Moulding Applications

Safrene® F 7650 High Density Polyethylene Resin is a bimodal medium molecular mass grade with good processing properties. It exhibits good impact strength and excellent environmental stress-crack resistance.

Safrene® F 7650 High Density Polyethylene Resin is recommended for all general purpose applications up to 20 litre in volume.

Typical Applications

- Toiletry containers
- General purpose containers
- Household and industrial chemical containers

PROPERTIES ⁽¹⁾	VALUE	UNIT	TEST METHOD
Physical			
Melt Flow Rate, 190 °C/ 5 kg	1.7	g/10min	ISO 1133
Melt Flow Rate, 190 °C/ 2.16 kg	0.33	g/10min	ISO 1133
Density ⁽²⁾	0.950	g/cm ³	ISO 1183
Mechanical ⁽³⁾			
Hardness Shore D	62	Units	ISO 868
Tensile Yield ⁽⁴⁾	23	MPa	ISO 527
Ultimate Tensile ⁽⁴⁾	36	MPa	ISO 527
Ultimate Elongation ⁽⁴⁾	>600	%	ISO 527
Flexural Modulus	1200	MPa	ISO 178
Environmental Stress-Crack Resistance ⁽⁵⁾	>1000	hours	ASTM D1693
Impact ⁽³⁾			
Charpy Notched Impact Strength (23 °C)	11	kJ/m ²	ISO 179
Charpy Notched Impact Strength (-30 °C)	8	kJ/m ²	ISO 179
Thermal			
Vicat Softening Point (10N)	126	°C	ISO 306/A50
Vicat Softening Point (50N)	70	°C	ISO 306/B50
Crystalline Melting Range	130-133	°C	ISO 3146

⁽¹⁾ Typical values; not to be construed as specification limits.

⁽²⁾ Unannealed

⁽³⁾ Compression moulded samples

⁽⁴⁾ Test speed 50 mm/min

⁽⁵⁾ Bell test condition B, 50°C, 10% Igepal, F50.

Typical processing conditions	Blow Moulding
Feed Zone (°C)	160 - 180
Zone1 (°C)	170 - 190
Zone 2 (°C)	180 - 200
Zone 3 (°C)	180 - 190
Die (°C)	180 - 190
Melt Temp (°C)	180 - 190

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<p>Food Contact Compliance</p>	<p>Safrene® F 7650 High Density Polyethylene Resin should comply with Commission Regulation (EU) No 10/2011 and with U.S. FDA 21 CFR 177.1520(c)3.1c food contact regulations when used unmodified and processed according to good manufacturing practices for food contact applications. The purchaser remains responsible for determining whether the use complies with all relevant regulations.</p>
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Additional Information

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