

Safrene® (High Density PolyEthylene)

Technical Data Sheet
F 7660
High Density Polyethylene for Blow Moulding Applications

Safrene® F 7660 High Density Polyethylene Resin is a medium molecular mass grade with good processing properties. It exhibits a good surface finish with high hardness and rigidity.

Safrene® F 7660 High Density Polyethylene Resin is recommended for milk and fruit juice bottles as well as other general purpose bottle applications up to 5 litre where good stiffness is required but environmental stress-crack resistance is not critical.

Typical Applications

- Milk and fruit juice containers
- Toiletry containers
- Household goods containers

PROPERTIES ⁽¹⁾	VALUE	UNIT	TEST METHOD
Physical			
Melt Flow Rate, 190 °C/ 5 kg	2.0	g/10min	ISO 1133
Melt Flow Rate, 190 °C/ 2.16 kg	0.45	g/10min	ISO 1133
Density ⁽²⁾	0.956	g/cm ³	ISO 1183
Viscosity Number	280	cm ³ /g	ISO 1628-3
Spiral Flow Test	33	cm	Internal
Mechanical ⁽³⁾			
Hardness Shore D	64	Units	ISO 868
Tensile Yield ⁽⁴⁾	27	MPa	ISO 527
Ultimate Tensile ⁽⁴⁾	38	MPa	ISO 527
Ultimate Elongation ⁽⁴⁾	>600	%	ISO 527
Flexural Stress (3.5% Deflection)	22	MPa	ISO 178
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, Load 5kg	77	°C	ISO 306
Crystalline Melting Range	130-133	°C	ISO 3146-85

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

(2) Unannealed

(3) Compression moulded samples

(4) Test speed 50 mm/min

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)	190 - 200
Melt Temp (°C)	180 - 190

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Product Stewardship	<p>At Safripol, protecting people and the environment will be a part of everything we do and every decision we make. Each employee has a primary responsibility in ensuring that our products and operations meet applicable government standards.</p> <p>Our goal is to eliminate all injuries, prevent adverse environment and health impacts, reduce wastes and emissions and promote resource conservation at every stage of the life cycle of our products. The success of this rests with each and every individual involved with Safripol products throughout the life cycle.</p>
Food Contact Compliance	<p>Safrene® F 7660 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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