

**Safrene®** (High Density PolyEthylene)

**Technical Data Sheet**
**D 7255**
**High Density Polyethylene for Injection and Compression Moulding Applications**

Safrene® D 7255 High Density Polyethylene Resin is suited to injection and compression moulding applications. Having excellent mechanical strength and toughness, as well as good environmental stress crack resistance, it is especially suitable for durable, thick-walled containers.

**Typical Applications**

- Caps and closures
- Refuse bins
- Storage containers and crates

PROPERTIES <sup>(1)</sup>	VALUE	UNIT	TEST METHOD
<b>Physical</b>			
Melt Flow Rate, 190 °C/ 5 kg	11	g/10min	ISO 1133
Melt Flow Rate, 190 °C/ 2.16 kg	3	g/10min	ISO 1133
Density <sup>(2)</sup>	0.949	g/cm <sup>3</sup>	ISO 1183
Spiral Flow Test	39	cm	Internal
<b>Mechanical</b> <sup>(3)</sup>			
Hardness Shore D	64	Units	ISO 868
Tensile Stress at Yield <sup>(4)</sup>	26	MPa	ISO 527
Tensile Stress at Break <sup>(4)</sup>	30	MPa	ISO 527
Tensile Strain at Yield <sup>(4)</sup>	11	%	ISO 527
Tensile Strain at Break <sup>(4)</sup>	>800	%	ISO 527
Flexural Modulus	1200	MPa	ISO 178
<b>Impact</b> <sup>(3)</sup>			
Charpy Notched Impact Strength (23 °C)	5.5	kJ/m <sup>2</sup>	ISO 179
Charpy Notched Impact Strength (-30 °C)	5.5	kJ/m <sup>2</sup>	ISO 179
<b>Thermal</b>			
Vicat Softening Point (10N)	124	°C	ISO 306/A50
Vicat Softening Point (50N)	71	°C	ISO 306/B50
Crystalline Melting Range	130-133	°C	ISO 3146

<sup>(1)</sup> Typical values; not to be construed as specification limits.

<sup>(2)</sup> Unannealed

<sup>(3)</sup> Compression moulded samples

<sup>(4)</sup> Test speed 50 mm/min

Typical processing conditions	Injection Moulding
Melt Temp (°C)	200 - 260

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<b>Food Contact Compliance</b>	<p>Safrene<sup>®</sup> D 7255 High Density Polyethylene Resin should comply with Commission Regulation (EU) No 10/2011 and with U.S. FDA 21 CFR 177.1520(c)3.2a 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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