

Safrene® M 7650

High Density Polyethylene

Safripol (PTY) LTD

Message:

Safrene® M 7650 High Density Polyethylene Resin is a high molecular mass grade suitable for extrusion blow moulding of containers greater than 20 litre capacity. It has a high rigidity and hardness with very good impact strength and environmental stress-crack resistance properties. Safrene® M 7650 High Density Polyethylene Resin was primarily designed for the blow moulding of large hollow articles but may be used for smaller mouldings where exceptional environmental stress-crack resistance and impact strength are required.

| General Information | | | |
|--------------------------------------------------|----------------------------------------|-------------------|--------------|
| Features | Rigidity, high | | |
| | High ESCR (Stress Cracking Resistance) | | |
| | High molecular weight | | |
| | Impact resistance, good | | |
| | Compliance of Food Exposure | | |
| | High hardness | | |
| Uses | Bellows | | |
| | Sheet | | |
| | Container | | |
| Agency Ratings | FDA 21 CFR 177.1520(c) 3.1c | | |
| | Europe 10/1/2011 12:00:00 AM | | |
| Processing Method | Blow molding | | |
| | Pipeline extrusion molding | | |
| | Extrusion | | |
| | Extrusion blow molding | | |
| | Sheet extrusion molding | | |
| Physical | Nominal Value | Unit | Test Method |
| Density ¹ | 0.953 | g/cm ³ | ISO 1183 |
| Melt Mass-Flow Rate (MFR) | | | ISO 1133 |
| 190°C/21.6 kg | 9.5 | g/10 min | ISO 1133 |
| 190°C/5.0 kg | 0.35 | g/10 min | ISO 1133 |
| Viscosity Number (Reduced Viscosity) | 350.0 | ml/g | ISO 1628 |
| Hardness | Nominal Value | Unit | Test Method |
| Durometer Hardness (Shore D, Compression Molded) | 62 | | ISO 868 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Stress | | | ISO 527-2/50 |

| | | | |
|---------------------------------------------------|---------------|-------------------|--------------|
| Yield, molding | 26.0 | MPa | ISO 527-2/50 |
| Fracture, molding | 40.0 | MPa | ISO 527-2/50 |
| Tensile Strain (Break, Compression Molded) | > 600 | % | ISO 527-2/50 |
| Flexural Stress (3.5% Strain, Compression Molded) | 22.0 | MPa | ISO 178 |
| Impact | Nominal Value | Unit | Test Method |
| Charpy Notched Impact Strength | | | ISO 179 |
| -30°C, molded | 20 | kJ/m ² | ISO 179 |
| 23°C, molded | 23 | kJ/m ² | ISO 179 |
| Thermal | Nominal Value | Unit | Test Method |
| Vicat Softening Temperature | 80.0 | °C | ISO 306/B |
| Peak Crystallization Temperature (DSC) | 130 - 133 | °C | ISO 3146 |

Additional Information

Blow Molding conditions:

Feed Zone: 180°C

Zone 1: 190 to 200°C

Zone 2: 200 to 210°C

Zone 3: 200°C

Die: 200°C

Melt Temperature: 200°C

NOTE

1. Unannealed

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