Safrene® M 5010

High Density Polyethylene

Safripol (PTY) LTD

Message:

HDPE M 5010 Polyethylene Resin is a high molecular mass grade especially developed for pressure pipe applications. HDPE M 5010 Polyethylene Resin has good impact strength, abrasion, chemical and UV resistance properties. HDPE M 5010 Polyethylene Resin is suitable for small and large diameter pressure pipe applications where compliance with ISO 4427 is required. HDPE M 5010 Polyethylene Resin is also recommended for sheet extrusion.

| General Information | | | |
|---|--------------------------|----------|--------------|
| Features | Food Contact Acceptable | | |
| | Good Abrasion Resistance | | |
| | Good Chemical Resistance | | |
| | Good Impact Resistance | | |
| | Good UV Resistance | | |
| | High Molecular Weight | | |
| | | | |
| Uses | Irrigation Applications | | |
| | Piping | | |
| | Sheet | | |
| | | | |
| Agency Ratings | EU 2002/72/EC | | |
| Processing Method | Extrusion | | |
| | Pipe Extrusion | | |
| | Sheet Extrusion | | |
| | | | |
| Physical | Nominal Value | Unit | Test Method |
| Density ¹ | 0.958 | g/cm³ | ISO 1183 |
| Melt Mass-Flow Rate (MFR) | | | ISO 1133 |
| 190°C/21.6 kg | 9.0 | g/10 min | |
| 190°C/5.0 kg | 0.30 | g/10 min | |
| Viscosity Number (Reduced Viscosity) | 340.0 | ml/g | ISO 1628 |
| Hardness | Nominal Value | Unit | Test Method |
| Shore Hardness (Shore D, Compression | ~ | | |
| Molded) | 61 | | ISO 868 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Stress | | | ISO 527-2/50 |
| Yield, Compression Molded | 24.0 | MPa | |
| Break, Compression Molded | 35.0 | MPa | |
| Tensile Strain (Break, Compression Molded) | > 600 | % | ISO 527-2/50 |
| Flexural Stress (3.5% Strain,Compression Molded) | 19.0 | MPa | ISO 178 |

| Impact | Nominal Value | Unit | Test Method |
|--|---------------|-------|-------------|
| Charpy Notched Impact Strength | | | ISO 179 |
| -30°C, Compression Molded | 4.0 | kJ/m² | |
| 23°C, Compression Molded | 12 | kJ/m² | |
| Thermal | Nominal Value | Unit | Test Method |
| Vicat Softening Temperature | 67.0 | °C | ISO 306/B |
| Peak Crystallization Temperature (DSC) | 130 to 133 | °C | ISO 3146 |
| NOTE | | | |
| 1. | Unannealed | | |

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