

# HDPE M 5010SH

## High Density Polyethylene Resin for Pipe and Extrusion Applications

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

**Note:** HDPE M 5010SH Polyethylene Resin should comply with U.S. FDA 21 CFR 177.1520(c)3.2a (with Restrictions) and Europe EU-Directive 2002/72/EC 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.

### Applications:

- Pipes for:
  - Drinking water
  - Irrigation
  - Effluent
  - Slurries
  - Chemical waste
- Sheet extrusion.

PROPERTIES <sup>(1)</sup>	UNIT	TEST METHOD	VALUE
<b>Physical</b>			
Melt Flow Index, 190 °C/5 kg	g/10min	ISO 1133	0.3
Melt Flow Index, 190 °C/21.6 kg	g/10min	ISO 1133	9
Density <sup>(2)</sup>	g/cm <sup>3</sup>	ISO 1183	0.948
Viscosity Number	cm <sup>3</sup> /g	ISO 1628-3	340
<b>Mechanical<sup>(3)</sup></b>			
Hardness, Shore D		ISO 868	61
Tensile Yield <sup>(4)</sup>	MPa	ISO 527	24
Ultimate Tensile <sup>(4)</sup>	MPa	ISO 527	35
Ultimate Elongation <sup>(4)</sup>	%	ISO 527	>600
Flexural Stress (3.5% Deflection)	MPa	ISO 178	19
Charpy Notched Impact Strength (23 °C)	kJ/m <sup>2</sup>	ISO 179	12
Charpy Notched Impact Strength (-30 °C)	kJ/m <sup>2</sup>	ISO 179	4
<b>Thermal</b>			
Vicat Softening Point, Load 5kg	°C	ISO 306	67
Crystalline Melting Range	°C	ISO 3146-85	130-133

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

(2) Unannealed.

(3) Compression moulded samples.

(4) Test speed 50 mm/min

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