

Technical Data Sheet  
**IPETHENE® 111**  
 Low Density Polyethylene



### Product Description

**IPETHENE® 111** is a low-density polyethylene film grade, produced by high-pressure autoclave technology.

<b>Features:</b>	<ul style="list-style-type: none"> <li>No additives</li> <li>Excellent bubble stability</li> <li>Good mechanical properties</li> </ul>	<ul style="list-style-type: none"> <li>Good processability</li> <li>Good optical properties</li> </ul>
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<b>Uses:</b>	<ul style="list-style-type: none"> <li>Medium duty bags</li> <li>Agricultural films</li> <li>Multilayer and lamination films</li> </ul>	<ul style="list-style-type: none"> <li>Squeezable bottles</li> <li>Liners</li> <li>Pouches</li> <li>Shrink films</li> </ul>
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<b>Processing Method:</b>	<ul style="list-style-type: none"> <li>Blown film extrusion</li> </ul>
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Properties		Method	Typical Value*	Unit
<b>Physical</b>				
<b>Melt Flow Rate</b>	(190°C/2.16 kg)	ISO 1133	0.7	g/10 min
<b>Density</b>		ISO 1183-A	0.920	g/cm <sup>3</sup>
<b>Thermal</b>				
<b>Peak Melting Temperature</b>	By DSC	ISO 11357-3	109	°C
<b>Vicat Softening Temperature</b>	(10 N)	ISO 306	95	°C
<b>Mechanical**</b>				
<b>Dart Drop Impact</b>	(F <sub>50</sub> )	ISO 7765-A	280	g
<b>Tensile Stress at Break</b>	(MD/TD)	ISO 527-3	27/25	MPa
<b>Tensile Strain at Break</b>	(MD/TD)	ISO 527-3	450/700	%
<b>Elmendorf Tear Strength</b>	(MD/TD)	ISO 6383-2	350/250	g
<b>Optical**</b>				
<b>Haze</b>		ASTM D 1003	7	%
<b>Gloss</b>	(45°)	ASTM D 2457	70	%

\*Typical values; not to be construed as specifications.

\*\* Measured on 50 µm blown film, Blow-up ratio 2.5:1, output 10 kg/h, melt temperature ~180°C.

### Processing Recommendations

IPETHENE® 111 can be easily processed on conventional extruders at melt temperature range 160-180°C. Due to differences in screw and die head designs, processing conditions should be optimized for each production line. With suitable equipment, it can be drawn down to 25 µm films.

### Health, Quality, Regulations and Safety

This product is not classified as dangerous substance. Material safety data sheets, international standards certificates (e.g. ISO 9001) and other regulatory documents are available on our website. This product is not intended for use in medical or pharmaceutical applications and we do not support its use for such applications.

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