

Technical Data Sheet  
**IPETHENE® 322**  
 Low Density Polyethylene



### Product Description

**IPETHENE® 322** is a low-density polyethylene film grade, produced by high-pressure autoclave technology.

|                  |   |   |
|------------------|---|---|
| <b>Features:</b> | <ul style="list-style-type: none"> <li>• Medium level slip and anti-block additives</li> <li>• Heat stabilized</li> <li>• BHT free</li> </ul> | <ul style="list-style-type: none"> <li>• Excellent draw-down</li> <li>• Good optical properties</li> <li>• Good processability</li> </ul> |
|------------------|---|---|

|              |   |   |
|--------------|---|---|
| <b>Uses:</b> | <ul style="list-style-type: none"> <li>• Carrier and shopping bags</li> <li>• Thin packaging films</li> </ul> | <ul style="list-style-type: none"> <li>• Bubble films</li> <li>• Foamed sheets</li> </ul> |
|--------------|---|---|

|                            |   |   |
|----------------------------|---|---|
| <b>Processing Methods:</b> | <ul style="list-style-type: none"> <li>• Blown film extrusion</li> <li>• Cast film extrusion</li> </ul> | <ul style="list-style-type: none"> <li>• Foaming</li> </ul> |
|----------------------------|---|---|

| Properties                         |                    | Method      | Typical Value* | Unit              |
|------------------------------------|--------------------|-------------|----------------|-------------------|
| <b>Physical</b>                    |                    |             |                |                   |
| <b>Melt Flow Rate</b>              | (190°C/2.16 kg)    | ISO 1133    | 2.0            | 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     | 93             | °C                |
| <b>Mechanical**</b>                |                    |             |                |                   |
| <b>Dart Drop Impact</b>            | (F <sub>50</sub> ) | ISO 7765-A  | 200            | g                 |
| <b>Tensile Stress at Break</b>     | (MD/TD)            | ISO 527-3   | 24/21          | MPa               |
| <b>Tensile Strain at Break</b>     | (MD/TD)            | ISO 527-3   | 500/750        | %                 |
| <b>Optical**</b>                   |                    |             |                |                   |
| <b>Haze</b>                        |                    | ASTM D 1003 | 6.5            | %                 |
| <b>Gloss</b>                       | (45°)              | ASTM D 2457 | 78             | %                 |

\*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 ~170°C.

### Processing Recommendations

IPETHENE® 322 can be easily processed on conventional extruders at melt temperature range 155-175°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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