

Technical Data Sheet
IPETHENE® 4140
 Low Density Polyethylene



Product Description

IPETHENE® 4140 is a low-density polyethylene film grade, produced by high-pressure autoclave technology.

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| Features: | <ul style="list-style-type: none"> No additives Good environmental stress cracking resistance | <ul style="list-style-type: none"> Excellent bubble stability Good mechanical properties |
| Uses: | <ul style="list-style-type: none"> Large diameter agricultural films Construction films | <ul style="list-style-type: none"> Shrink films Pipes Heavy duty bags |
| Processing Methods: | <ul style="list-style-type: none"> Blown film extrusion Blow molding | <ul style="list-style-type: none"> Pipe extrusion |

| Properties | | Method | Typical Value* | Unit |
|------------------------------------|--------------------|-------------|----------------|-------------------|
| Physical | | | | |
| Melt Flow Rate | (190°C/2.16 kg) | ISO 1133 | 0.13 | g/10 min |
| Density | | ISO 1183-A | 0.920 | g/cm ³ |
| Thermal | | | | |
| Peak Melting Temperature | By DSC | ISO 11357-3 | 109 | °C |
| Vicat Softening Temperature | (10 N) | ISO 306 | 97 | °C |
| Mechanical** | | | | |
| Dart Drop Impact | (F ₅₀) | ISO 7765-A | 500 | g |
| Tensile Stress at Break | (MD/TD) | ISO 527-3 | 24/27 | MPa |
| Tensile Strain at Break | (MD/TD) | ISO 527-3 | 650/700 | % |
| Elmendorf Tear Strength | (MD/TD) | ISO 6383-2 | 250/450 | g |

*Typical values; not to be construed as specifications.

** Measured on 100 µm blown film, Blow-up ratio 2.5:1, output 10 kg/h, melt temperature ~210°C.

Processing Recommendations

IPETHENE® 4140 can be easily processed on conventional extruders at melt temperature range 180-230°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 70 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.