

ISPLEN® PP 044 W3F

Polypropylene Homopolymer
REPSOL

PROSPECTOR®

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Technical Data

Product Description

Isplen® PP 044 W3F is a medium melt flow rate polypropylene homopolymer specially formulated and adapted for bioriented film extrusion (BOPP). The product is suitable for metallizable film.

Rheological properties enhance orientation and give it very high break resistance in the melt, meaning that it behaves ideally during subsequent treatment.

It is extremely pure and has an excellent thermal stability. It's optical, mechanical and barrier properties are very good.

It can be easily coloured during the extrusion process using the right pigments, preferably in the form of concentrates with a higher melt flow rate than the base polymer.

TYPICAL APPLICATIONS

In extrusion processes such as:

- Bi-oriented film BOPP manufactured using the tenter process.
- High tenacity staple yarn
- Low thickness sheet extrusion

Recommended melt temperature range from 210 to 250°C. Processing conditions should be optimised for each production line.

General

Material Status	• Commercial: Active
Literature ¹	• Processing - Injection Molding (English) • Technical Datasheet (English)
Search for UL Yellow Card	• REPSOL
Availability	• Europe • North America
Features	• Barrier Resin • Food Contact Acceptable • Good Colorability • Good Melt Strength • Good Thermal Stability • Metallizable • Opticals
Uses	• BCF Yarn • Bi-axially Oriented Film • Film • Sheet
Agency Ratings	• EU Food Contact, Unspecified Rating
Processing Method	• Blown Film • Sheet Extrusion

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.905 g/cm ³	0.905 g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	3.0 g/10 min	3.0 g/10 min	ISO 1133
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Stress (Yield)	5080 psi	35.0 MPa	ISO 527-2
Flexural Modulus	189000 psi	1300 MPa	ISO 178
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature 66 psi (0.45 MPa), Unannealed	196 °F	91.0 °C	ISO 75-2/B
Vicat Softening Temperature	306 °F	152 °C	ISO 306/A
Extrusion	Nominal Value (English)	Nominal Value (SI)	
Melt Temperature	410 to 482 °F	210 to 250 °C	

Notes

¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² Typical properties: these are not to be construed as specifications.

