

POLYMERS

SABIC[®] HDPE Bimodal Blown Film FI1157

PRODUCT DESCRIPTION

FI1157 is high molecular weight high density polyethylene copolymer grade specifically designed for blown film applications. The design of the product, molecular architecture and density, gives it a unique combination of easy extrusion and high melt strength with strong physical properties which makes it suitable for producing thin films with excellent strength and rigidity. The grade is designed specifically to produce thin films with good stiffness.

TYPICAL APPLICATIONS

FI1157 is recommended for blown film extrusion. It can be used for producing grocery sacks, shopping bags, refuse bags, thin films for bag on roll, wrapping film and also for replacement of thin paper products. Films produced with this product can be readily treated and printed to give high quality graphics.

TYPICAL DATA

| PROPERTIES | Unit | Value ⁽¹⁾ | Test Method |
|---|-------------------|----------------------|-------------|
| Melt Flow Rate | | | |
| @ 190°C & 5 kg load | g/10 min | 0.35 | ISO 1133 |
| @ 190°C & 21.6 kg load | | 11 | |
| Density @ 23°C | Kg/m ³ | 957 | ISO 1183 |
| MECHANICAL PROPERTIES ⁽²⁾ | | | |
| Tensile Strength@ yield, MD, TD | MPa | 50 , 45 | ISO 527 |
| Tensile elongation @ Break MD, TD | % | 400 , 450 | ISO 527 |
| Dart Impact Strength, F50 | g | 240 | ASTM D 1709 |
| Elmendorf Tear Strength, MD, TD | mN | 200 , 450 | ISO 6383-2 |
| Hardness (Shore D) | - | 62 | ISO 868 |
| THERMAL PROPERTIES | | | |
| Vicat Softening Point | °C | 75 | ISO 306 |
| Brittleness Temperature | °C | < -80 | ASTM D 746 |

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

(2) Properties are based on 20 µm film produced at 4 BUR using 100% FI1157.

Processing Conditions:
Melt Temperature: 200-225°C
Frost line Height: 6-8 times die Ø
BUR: 3-5

HEALTH, SAFETY AND FOOD CONTACT REGULATIONS

Detailed information is provided in the relevant Material Safety Datasheet and or Standard Food Declaration, Additional specific information can be requested via your local Sales Office.

STORAGE AND HANDLING

Polyethylene material should be stored in a manner to prevent a direct exposure to sunlight and/or heat. The storage area should also be dry and preferably don't exceed 50°C. SABIC would not give warranty to bad storage conditions which may lead to quality deterioration such as color change, bad smell and inadequate product performance. It is advisable to process PE resin within 6 months after delivery.

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