

SABIC® HDPE PCGF0863

HIGH DENSITY POLYETHYLENE

DESCRIPTION

SABIC® HDPE grades for healthcare applications are produced under controlled conditions resulting in high product quality, consistency and a high level of purity.

SABIC® HDPE PCGF0863 resin is a high density homopolymer with good barrier properties. The grade offers high stiffness, high temperature resistance and relatively high grease resistance. The resin has a low gel level.

SABIC® HDPE PCGF0863 is typically used for flexible packaging, pharmaceuticals and devices and release liners.

Film properties have been measured at cast film of 25 µm. Water vapor permeability at 38 °C and 100 % RH per 24 h. Oxygen permeability at 23 °C and 0 % RH per 24 h.

Compliance to regulations.

SABIC® HDPE PCGF0863 complies with the relevant monographs of the European Pharmacopoeia (EP) and the United States Pharmacopoeia (USPVI).

TYPICAL PROPERTY VALUES

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---------------------------------|----------------|-----------------------|--------------|
| POLYMER PROPERTIES | | | |
| Melt Flow Rate (MFR) | | | |
| at 190 °C and 2.16 kg | 8 | dg/min | ISO 1133 |
| Density | 964 | kg/m ³ | ISO 1183 |
| FILM PROPERTIES | | | |
| Tensile test film | | | |
| Yield stress TD | 24 | MPa | ISO 527-3 |
| Yield stress MD | 26 | MPa | ISO 527-3 |
| Stress at break TD | 18 | MPa | ISO 527-3 |
| Stress at break MD | 22 | MPa | ISO 527-3 |
| Strain at break TD | 800 | % | ISO 527-3 |
| Strain at break MD | 700 | % | ISO 527-3 |
| Modulus of elasticity TD | 580 | MPa | ISO 527-3 |
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| Permeability | | | |
| water vapour (H ₂ O) | 4.0 | g/m ² day | SABIC method |
| oxygen (O ₂) | 0.1 | ml/m ² day | SABIC method |
| THERMAL PROPERTIES | | | |
| DSC test | | | |
| melting point | 134 | °C | DIN 53765 |
| enthalpy change | 224 | J/g | DIN 53765 |