

APSOplast® PE-LD natural (opal)

Engineering Plastic Technology Technical Data Sheet

Application purpose and characteristics

PE-LD is used for flat gaskets for various chemical, pharmaceutical, and foodstuff applications. Other applications include films for packaging, shrink film, carrier bags, agricultural films, water vapour barriers for composite films, etc.

PE-LD is soft and particularly flexible. It is resistant to low temperatures of up to $-50\text{ }^{\circ}\text{C}$ and high temperatures of max. $+60\text{ }^{\circ}\text{C}$.

Product description

Material name, long description	Polyethylene low density
Material name, short description	PE-LD
Material Code	PE-LD 00.029-00
Density	0.92 g/cm ³
Color	natural (opal)

Mechanical properties

Yield stress	Test value: 10 MPa Test norm: ISO 527-1
Elongation at yield	Test value: 12 % Test norm: ISO 527-1
Elongation at rupture	Test value: > 50 % Test norm: ISO 527-1
Flexural modulus of elasticity	Test value: 200 MPa Test norm: ISO 527-1
Notch impact strength	Test value: 85 MJ/mm ² Test norm: ISO 179
Shore hardness	Test value: 45 Shore D Test norm: ISO 868

Thermal properties

Min. operating temperature	Test value: $-50\text{ }^{\circ}\text{C}$
Max. operating temperature long term	Test value: $+60\text{ }^{\circ}\text{C}$
Max. operating temperature short term	Test value: $+90\text{ }^{\circ}\text{C}$
Crystalline melting point	Test value: $110\text{ }^{\circ}\text{C}$
Thermal conductivity	Test value: 0.35 W/m·K Test norm: DIN 52612

Electrical properties

Dielectric strength	Test value: 45 kV/mm Test norm: DIN IEC 60243-1
Volume resistivity	Test value: $10^{15}\text{ Ohm}\cdot\text{cm}$ Test norm: VDE 0303
Surface resistivity	Test value: 10^{14} Ohm Test norm: VDE 0303

Other properties

Flammability	Test value: B2 Test norm: DIN 4102
	Test value: HB Test norm: UL 94

Approvals

- FDA 21 CFR 177.1520

