

PE - HD (300)

Material Information



PE - HD (300)

Product full identity:

Polyethylene - High Density (300)

PE-HD (300) is a lightweight, durable material with excellent impact and sliding properties, along with strong chemical and corrosion resistance. Food compliant, easy to weld, and simple to fabricate, it's ideal for chemical packaging, food processing, automotive, and leisure applications, offering reliable performance across industries.

Properties

- High impact strength
- Good chemical resistance
- Wide temperature range (+80 to -50°C)
- Lightweight and weldable
- Very low moisture absorption <0.1%
- Food contact approved

Applications

- Chemical packaging
- Packaging
- Food processing
- Automotive
- Leisure

Forms



Solid Rod



Square Tube



Rectangular Tube



Sheet



Channel



Angle



Weld Rod

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Technical Properties

Physical	Unit	Test Method	Result
Specific gravity	g/cm ³	DIN EN ISO 1183	0.95
Water absorption until saturation at 23°C	%	-	-
Maximum service temp. Upper temp limit – short term	°C	-	80
Maximum service temp. Upper temp limit – long term	°C	-	-
Lower temp limit	°C	-	-50
Mechanical	Unit	Test Method	Result
Tensile strength	MPa	DIN EN ISO 527	23
Elongation at yield	%	DIN EN ISO 527	9
Tensile strength at break	MPa	-	-
Unnotched impact strength	kJ/m ²	DIN EN ISO 179	No break
Notch impact strength	kJ/m ²	DIN EN ISO 179-1eA	16
Ball indentation / Rockwell hardness	MPa	DIN EN ISO 2039-1	43
Shore-D		DIN EN ISO 868	65
Flexural modulus of elasticity	MPa	-	-
Tensile modulus of elasticity	MPa	DIN EN ISO 527	1100
Thermal	Unit	Test Method	Result
Vicat-softening point VST/B/50	°C	-	-
Heat deflection temperature HDT/B	°C	-	-
Coefficient of linear thermal expansion 23 – 100°C	m/(m.K)	ISO 11359-2	1.8 x 10 ⁻⁴
Thermal conductivity at 23°C	W/mK	DIN EN 12667	0.38
Electrical	Unit	Test Method	Result
Volume resistivity	Ω x m	-	-
Surface resistivity	Ω	DIN EN 61340	≥10 ¹³
Insulation resistivity	Ω . cm	-	-
Dielectric constant at 1MHz		-	-
Dielectric loss factor at 1MHz		-	-
Dielectric strength	kV/mm	-	-
Comparative tracking index (CTI)		-	-
Additional Data	Unit	Test Method	Result
Bondability		-	-
Food compliance – FDA		FDA	Yes
Food compliance – EU		EU	Yes
Antistatic		-	-
Flammability	Unit	Test Method	Result
Fire performance		DIN 4102	B2
Optical	Unit	Test Method	Result
N/A	N/A	N/A	N/A

All information provided in this Product Datasheet is for guide purposes only. The data has been taken from standard test results provided by our manufacturers.