

PE - HD (100)

Material Information



PE - HD (100)

Product full identity:

Polyethylene - High Density (100)

PE - HD (100) is a lightweight, durable material with excellent impact and sliding properties, along with a high resistance to stress cracking under increased pressure. Easy to weld, and simple to fabricate, it's ideal for chemical packaging, high pressure applications and marine manufacturing, offering reliable performance across industries.

Properties

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

Applications

- Chemical tanks
- High pressure applications
- Marine

Forms



Sheet



Pressure Pipe



Weld Rod

PE - HD (100)

Technical Properties

Physical	Unit	Test Method	Result
Specific gravity	g/cm ³	DIN EN ISO 1183	0.96
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	21
Ball indentation / Rockwell hardness	MPa	DIN EN ISO 2039-1	40
Shore-D		DIN EN ISO 868	64
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	DIN IEC 60243-1	47
Comparative tracking index (CTI)		-	-
Additional Data	Unit	Test Method	Result
Bondability		-	-
Food compliance – FDA		FDA	Yes (Natural only)
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.