for all your plastic requirements

High Density Polyethylene - HDPE

HDPE is widely used in automotive, leisure and industrial applications HDPE has excellent impact strength, even at temperatures as low as -30ºC. Coupled with low coefficient of friction and ease of fabrication.

Technical Specification

	Test method	Units	HDPE
Physical Properties			
Specific gravity (p)	DIN 53479	g/cm³	0.95
Water absorption	DIN 53495	%	0.01
Chemical Resistance	DIN 53476	-	DIN 8075
Max. permissible service temperature (no stronger mech. stress involved)			
upper temperature limit	-	°C	90
lower temperature limit	-	°C	-30
Mechanical Properties			
Tensile stress at yield	DIN 53455	MPa	23
Elongation at yield	DIN 53455	%	8
Tensile strength at break	DIN 53455	MPa	32
Elongation at break	DIN 53455	%	>50
Impact strength	DIN 53453	kJ/m²	o.B.
Notch impact strength	DIN 53453	kJ/m²	o.B.
Ball indentation hardn. / Rockwell			
	DIN 53456	MPa	40
Modulus of elasticity	DIN 53457	MPa	700
Thermal Properties			
Vicat softening temp. VST/B/50 VST/A/50 °C	DIN 53460	°C	76
Heat deflection temperature HDT/B HDT/A °C	DIN 53461	°C	70
Coef. of linear therm. expansion	DIN 53752	$k^{-1} \times 10^{-4}$	2
Thermal conductivity at 20 °C	DIN 52612	W / (m*k)	0.41
Electrical Properties			
Volume resistivity	DIN 53482	Ωx cm	$>10^{15}$
Surface resistivity	DIN 53482	Ω	$>10^{16}$
Dielectric constant at 1 MHZ	DIN 53483		2.3
Dielectric loss factor at 1 MHZ	DIN 53483		0.0002
Dielectric strength	DIN 53481	kV/mm	>70
Tracking resistance	DIN 53480		KB>600