



HDPE Black

PE300/PE-HWU
 (High Density Polyethylene)
 Colour: Black
 Density: 0.955g/cm³

Material Data Sheet

Mechanical Properties	Value	Unit	DIN/EN/ISO
Tensile strength at yield	25	MPa	527/D638
Elongation at yield	9	%	527
Modulus of elasticity in tension	1000	MPa	527/D638
Modulus of elasticity in flexure	1000-1400	MPa	178/D790
Impact strength	No br.	kJ/m ²	179/D256
Creep rupture strength after 1000hrs with static load	12.5	MPa	-
Time yield limit for 1% elongation after 1000hrs	3	MPa	-
Coefficient of friction against hardened and ground steel P= 0.05 N/mm ² , v= 0.6m/s	0.29	-	-
Ball indentation hardness	50	MPa	2039-1
Shore hardness D	64	-	868

Thermal Properties	Value	Unit	DIN/EN/ISO
Glass transition temperature	-95	°C	53736
Crystalline melting point	130	°C	53736
Service temperature (short term)	90	°C	-
Service temperature (long term)	80	°C	-
Coefficient of thermal expansion	13-15	10 ⁻⁵ K	53483/D696
Specific heat	1.7-2	J/(g*K)	-
Coefficient of thermal conductivity	0.35-0.43	W/(K*m)	-

Electrical properties	Value	Unit	DIN/IEC
Surface resistivity	10 ¹⁴	Ohm	60093
Dielectric strength	47	kV/mm	60243-1

Other properties	Value	Unit	DIN/EN/ISO/IEC
Water absorption @ saturation @ 23°C	<0.05	%	62
Resistance to hot water, washing soda	Resistant	-	-
Resistance to weathering	Resistant	-	-
Flammability (UL94)	HB	-	-

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The following information corresponds with our current knowledge and indicates our products and possible applications. We cannot give a legally binding guarantee of certain properties or the suitability for a specific application. Existing commercial patents must be observed. A definitive quality guarantee is given in our general conditions of sales. Unless otherwise stated, these values represent averages taken from injection moulding samples. We reserve the right of technical alterations.