

SUPPLY SERVICES

performance engineering products

Technical Data Sheet

Typical Properties of Unmodified HD-PE PE300

Colour: Natural, black and colours

Description: Low density, very low moisture absorption, will not delaminate, rot or chip.

Typical industry use: Cutting boards, playground equipment, partition boards, marine construction, container engineering, bench tops, plywood replacement.

	Test method	Unit	Guideline value
Mechanical properties			
Density	ISO 1183	g/cm ³	0.95
Yield stress	ISO 527 (50mm/min)	MPa	23
Elongation at yield	ISO 527 (50mm/min)	%	9
Modulus of elasticity in tension	ISO 527 (1mm/min)	MPa	800
Notched impact strength	ISO 179 (+23°C)	kJ/M ²	20
Hardness	ISO 868 (15 sec.)	Shore D	64
Ball indentation hardness	ISO 2039-1	MPa	41
Electrical properties			
Specific volume resistivity	IEC 60093 (1 min, 1000V)	Ω*cm	>10 ¹⁵
Surface resistivity	IEC 60093	Ω	>10 ¹⁵
Dielectric strength	IEC 60243-1	kV/mm	48
Dielectric constant	IEC 60250 (50 kHz)		2.35
Dielectric loss factor	IEC 60250 (1 kHz)		2.35
Dielectric loss factor	IEC 60250 (10 ⁶ Hz)	tan σ	3.5 x 10 ⁻⁴
Thermal properties			
Coefficient of linear expansion	DIN 53752	10 ⁻⁴ x K ⁻¹	1.5 – 2.0
Other properties			
Water absorption	ISO 62	%	0.5
Flammability	DIN 4102		B2 (o.P.)
Temperature range	Up to		-50 to +80°C

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