

# SUPPLY SERVICES

performance engineering products

## Technical Data Sheet

### Typical Properties of Pipe Grade PE100

**Colour:** Black

**Description:** PE100 has high tensile strength, high impact resistance, and long term durability. Commonly used in the construction of pipelines for water, wastewater, and chemical systems.

**Typical industry use:** Water and wastewater tanks, chemical tanks, manhole covers, piper reducers, pipe flanges, end caps, flange adapters, lifting lugs, trenches and sumps.

	Test method	Unit	Guideline value
<b>Mechanical properties</b>			
Density	ISO 1183	g/cm <sup>3</sup>	0.96
Yield stress	ISO 527 (50mm/min)	MPa	23
Elongation at yield	ISO 527 (50mm/min)	%	8
Modulus of elasticity in tension	ISO 527 (1mm/min)	MPa	1050
Hardness	ISO 868 (15 sec.)	Shore D	64
Ball indentation hardness	ISO 2039-1	MPa	40
<b>Electrical properties</b>			
Specific volume resistivity	IEC 60093 (1 min, 1000V)	Ω*cm	>10 <sup>14</sup>
Surface resistivity	IEC 60093	Ω	>10 <sup>14</sup>
Dielectric strength	IEC 60243-1	kV/mm	45
Dielectric constant	IEC 60250 (50 kHz)		2.5
Dielectric loss factor	IEC 60250 (1 kHz)		2.5
Dielectric loss factor	IEC 60250 (10 <sup>6</sup> Hz)	tan σ	3.5 x 10 <sup>-4</sup>
<b>Thermal properties</b>			
Coefficient of linear expansion	DIN 53752	10 <sup>-4</sup> x K <sup>-1</sup>	1.5 – 2.0
<b>Other properties</b>			
Flammability	DIN 4102		B2 (o.P.)
Temperature range	Up to		-50 to +80°C

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Ph. 0800 102 112