

TECAFLON PVDF ELS black - Stock Shapes (rods, plates, tubes)

Chemical Designation

PVDF (Polyvinylidene fluoride)

Colour

black opaque

Density

1.78 g/cm³

Fillers

conductive carbon black

Main features

- electrically conductive
- very good chemical resistance
- inherent flame retardant
- continuous service temperature up to 150 °C
- good slide and wear properties
- very good UV and weather resistance
- very good weldable

Target Industries

- chemical technology
- electronics
- energy industry
- mechanical engineering

<i>Mechanical properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Modulus of elasticity (tensile test)	1mm/min	3100	MPa	DIN EN ISO 527-2	1)
Tensile strength at yield	50mm/min	55	MPa	DIN EN ISO 527-2	
Elongation at yield (tensile test)	50mm/min	4	%	DIN EN ISO 527-1	
Elongation at break (tensile test)	50mm/min	8	%	DIN EN ISO 527-2	
Impact strength (Charpy)	max. 7,5J	67	kJ/m ²	DIN EN ISO 179-1	2)
Ball indentation hardness		162	MPa	ISO 2039-1	3)
					(1) For tensile test: specimen type 1b (2) For Charpy test: support span 64mm, norm specimen. (3) Specimen in 4mm thickness
<i>Thermal properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Glass transition temperature		-40	°C	DIN EN ISO 11357	1)
Melting temperature		177	°C	DIN EN ISO 11357	
Service temperature	long term	150	°C	-	
Service temperature	short term	150	°C	-	2)
					(1) Found in public sources. (2) Found in public sources. Individual testing regarding application conditions is mandatory.
<i>Electrical properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
surface resistivity		10 ² - 10 ⁵	Ω	DIN EN 61340-2-3	
<i>Other properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Resistance to hot water/ bases		+	-	-	1)
Resistance to weathering		+	-	-	2)
					(1) + good resistance (2) + good resistance

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