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

Chemical Designation
PVDF (Polyvinylidene fluoride)

Colour
black opaque

Density
1.78 g/cm^3

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

Mechanical properties	parameter	value	unit	norm		comment
Modulus of elasticity (tensile test)	1mm/min	3100	MPa	DIN EN ISO 527-2	1)	(1) For tensile test: specimen type 1b (2) For Charpy test: support span 64mm, norm specimen. (3) Specimen in 4mm thickness
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)	

Thermal properties	parameter	value	unit	norm		comment
Glass transition temperature		-40	°C	DIN EN ISO 11357	1)	(1) Found in public sources. (2) Found in public sources. Individual testing regarding application conditions is mandatory.
Melting temperature		177	°C	DIN EN ISO 11357		
Service temperature	short term	150	°C	-	2)	
Service temperature	long term	150	°C	-		

Electrical properties	parameter	value	unit	norm		comment
surface resistivity		10^2- 10^6	Ω	DIN EN 61340-2-3		

Other properties	parameter	value	unit	norm		comment
Resistance to hot water/ bases		+		-	1)	(1) + good resistance (2) + good resistance
Resistance to weathering		+		-	2)	

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Manufactured by: Ensinger Group, a German based plastic manufacturer

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