

SOLEF® 6010 / 0000

PVDF Homopolymer from Solvay

Medium Viscosity - Extrusion of semi-finished products

Physical properties	Standards	Units	
Density	ISO 1183	g/cm ³	1.78
Water absorption (24 h at 23°C)	ISO 62 (method 1)	%	< 0.04
Melt Flow Index	ASTM D 1238		
	230°C, 10 kg	g/10 min	-
	230°C, 5 kg	g/10 min	6
	230°C, 2.16 kg	g/10 min	2

Mechanical properties

Tensile	ASTM D 638		
Tensile stress at yield	23 °C, 50 mm/min	MPa	53- 57
Tensile stress at break		MPa	35 - 50
Elongation at yield		%	5 - 10
Elongation at break		%	20 - 50
Modulus	23 °C, 1 mm/min	MPa	2400
Flexion	ASTM D 790		
Maximum load	23 °C 2 mm/min	MPa	77
Modulus		MPa	2100
IZOD impact (notched V 10 mm - at 23 °C - 4 mm thick)	ASTM D 256	J/m	120
Shore D Hardness (2 mm thick)	ASTM D 2240	-	77
Abrasion resistance	TABER CS 10/1 kg	mg/1000 rev	5 - 10
Friction coefficient:	ASTM D 1894	static	0.2 - 0.4
		dynamic	0.2 - 0.3

Thermal properties

Crystallinity by DSC	ASTM D 3418		
Melting point		°C	173
Heat of fusion (80 °C to end of melting)		J/g	61
Crystallizing point		°C	138
Crystallization heat		J/g	56
VICAT point (4 mm thick)	ISO 306		
load 1 kg		°C	170
Deflection temperature (4 mm thick)	ASTM D 648		
load 0.46 MPa	after annealing	°C	145
load 1.82 MPa		°C	110
Glass transition (T _g)	DMTA	°C	- 32
Brittleness temperature (on 2 mm pressed sheet)	ASTM D 746 A	°C	- 5 to +5

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Thermal properties (continuation)	Standards	Units	
Molding shrinkage		%	2 - 3
Thermal stability	TGA beginning- and at 1% weight loss in air	°C	> 400 ⁽¹⁾
Linear thermal expansion coefficient	ASTM D 696	10 ⁻⁶ K ⁻¹	120 - 140
Thermal conductance at 23°C	ASTM C 177	W/m.K	0.2
Specific heat	23 °C & 100 °C	J/g.K	1.2 - 1.6

Electrical properties

Surface resistivity Voltage < 1V, after 2 min - 500 V at 23 °C	[ASTM D 257 DIN 53483	ohm/square	≥ 1.10 ¹⁴
Volume resistivity Intensity = 10 mA, after 2 min at 23 °C			
	[ASTM D 257 DIN 53483	ohm.cm	≥ 1.10 ¹⁴

Fire resistance

UL-94 Flammability test	UL-94	Class	V-O
Limiting Oxygen Index (sheet 3 mm thick)	ASTM D 2863	%	44

(1) Results achieved with formulated grades /0000.

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