

# PVDF<sup>®</sup>

## polivinilidenuoruro

Properties	Test method	Unit	PVDF
<b>Physical Properties</b>			
Specific gravity	ISO 1183	g/cm <sup>3</sup>	1,78
Water absorption	ISO 62	%	0,04
Humidity absorption	ISO 62	%	0,01
Maximun permissive service temperature	UL746B	°C	150
Lower permissive service temperature	UL746B	°C	-30
<b>Mechanical properties</b>			
Tensile strenght at yelt ( $\sigma_s$ )	ISO 527	Mpa	58
Elongation st yelt ( $\epsilon_s$ )	ISO 527	%	17
Tensile strenght at break ( $\sigma_R$ )	ISO 527	Mpa	46
Elongation at break ( $\epsilon_R$ )	ISO 527	%	29
Impact strenght	ISO 179	kJ/m <sup>2</sup>	n.b.
Notch impact strenght	ISO 179	kJ/m <sup>2</sup>	12
Ball indentation / Rockwell hardness	ISO 2039	Mpa	120
Shore - D	ISO 868	---	80
Flexural strenght	ISO 178	Mpa	80
Modulus of elasticity	ISO 527	Mpa	2125
<b>Thermal Properties</b>			
Vicat-solftening point VST/B/50	ISO 306	°C	138
Vicat-solftening point VST/A/50	ISO 306	°C	160
Heat deflection temperature HDT/B	ISO 75	°C	145
Heat deflection temperature HDT/A	ISO 75	°C	104
Coef. of linear thermal expansion ( $\alpha$ )	ISO 11359	K <sup>-1</sup> * 10 <sup>-4</sup>	1,3
Thermal conductivity at 20°C	ISO 22007-4	W / (m * k)	0,13
Glass transition temperature	ISO 3146	°C	-40
Melting temperature	ISO 3146	°C	171
<b>Electrical properties</b>			
Volume resistivity	IEC 60093	$\Omega \cdot \text{cm}$	$\geq 10^{10}$
Surface resistivity	IEC 60093	$\Omega$	$\geq 10^{13}$
Dielectric costant at 1 MHz	IEC 60250	--	7
Dielectric loss factor at 1 Mhz	IEC 60250	--	0,24
Dielectric strenght	IEC 60243-1	kV/mm	27
Tracking resistance	IEC 60112	V	CTI 600
<b>Additional Data</b>			
Bondability	--	--	0 <sup>2</sup>
Physiological indifference according	EEC - FDA	--	--
Flammability	UL 94	--	V-0
Liiting Oxygen Index (LOI)	ASTM D2863	%	44