

TECATRON PVX black - 型材 (棒材, 板材, 管件)

化學命名

PPS (聚苯硫醚)

顏色

黑色 不透明

密度

1.5 g/cm³

添加物

碳纖維, 鐵氟龍, 石墨

主要特色

- 優異的耐化學性
- 良好的熱變形溫度
- 優異的滑動和耐磨特性
- 固有的防火性
- 良好的尺寸穩定性
- 高剛性
- 高蠕變抗性

目標產業

- 機械工程
- 石油和天然氣工業
- 真空科技
- 汽車工業
- 航空與航太科技

機械特性	參數	值	單位	標準	註解
抗拉強度	50mm/min	53	MPa	DIN EN ISO 527-2	(1) For tensile test: specimen type 1b
彈性模數 (張力測試)	1mm/min	4600	MPa	DIN EN ISO 527-2	(2) For flexural test: support span 64mm, norm specimen.
降伏點抗拉強度	50mm/min	53	MPa	DIN EN ISO 527-2	(3) Specimen 10x10x10mm
降伏點伸長率	50mm/min	2	%	DIN EN ISO 527-2	(4) Specimen 10x10x50mm, modulus range between 0.5 and 1% compression.
斷裂伸長率	50mm/min	2	%	DIN EN ISO 527-2	(5) For Charpy test: support span 64mm, norm specimen.
抗彎強度	2mm/min, 10 N	91	MPa	DIN EN ISO 178	(2)
彈性模數 (彎曲測試)	2mm/min, 10 N	4800	MPa	DIN EN ISO 178	
壓縮強度	1% / 2% / 5% 5mm/min, 10 N	19/36/89	MPa	EN ISO 604	(3)
壓縮模數	5mm/min, 10 N	3300	MPa	EN ISO 604	(4)
衝擊強度(Charpy)	max. 7.5J	14	kJ/m ²	DIN EN ISO 179-1eU	(5)
蕭氏硬度	D	85		DIN EN ISO 868	
熱特性	參數	值	單位	標準	註解
玻璃轉化溫度		94	°C	DIN EN ISO 11357	(1)
熔化溫度		281	°C	DIN EN ISO 11357	
使用溫度	short term	260	°C		(2)
使用溫度	long term	230	°C		
熱膨脹 (CLTE)	23-60°C, long.	5	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	
熱膨脹 (CLTE)	23-100°C, long.	6	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	
熱膨脹 (CLTE)	100-150°C, long.	13	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	
比熱		0.9	J/(g*K)	ISO 22007-4:2008	
導熱係數		0.58	W/(K*m)	ISO 22007-4:2008	
電性特性	參數	值	單位	標準	註解
表面電阻		10 ⁴ - 10 ¹⁰	Ω	DIN EN 61340-2-3	
體積電阻		10 ⁷ - 10 ¹²	Ω*cm	DIN EN 61340-2-3	
其他特性	參數	值	單位	標準	註解
吸水率	24h / 96h (23°C)	<0.01 / <0.01	%	DIN EN ISO 62	(1) Ø ca. 50mm, h=13mm
耐熱水/鹼		+	-	-	(2) + good resistance
耐候性		(+)	-	-	(3) (+) limited resistance
耐燃性(UL94)	corresponding to	V0	-	DIN IEC 60695-11-10;	(4) Corresponding means no listing at UL (yellow card). The information might be taken from resin, stock shape or estimation. Individual testing regarding application conditions is mandatory.

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