

TECASON P MT black - 型材 (棒材, 板材, 管件)

化學命名

PPSU (聚苯砜)

顏色

黑色 不透明

密度

1.31 g/cm³

主要特色

- 高熱與機械能力
- 良好的熱變形溫度
- 耐水解和熱蒸氣
- 良好的衝擊強度
- 高剛性
- 高強度
- 良好的耐化學性
- 高伽瑪輻射抗性

目標產業

- 醫療科技
- 機械工程
- 真空科技
- 汽車工業

機械特性	參數	值	單位	標準	註解
抗拉強度	50mm/min	81	MPa	DIN EN ISO 527-2	(1) For tensile test: specimen type 1b
彈性模數 (張力測試)	1mm/min	2300	MPa	DIN EN ISO 527-2	(2) For flexural test: support span 64mm, norm specimen.
降伏點抗拉強度	50mm/min	81	MPa	DIN EN ISO 527-2	(3) Specimen 10x10x10mm
降伏點伸長率	50mm/min	7	%	DIN EN ISO 527-2	(4) Specimen 10x10x50mm, modulus range between 0.5 and 1% compression.
斷裂伸長率	50mm/min	> 50	%	DIN EN ISO 527-2	(5) For Charpy test: support span 64mm, norm specimen. n.b. = not broken
抗彎強度	2mm/min, 10 N	107	MPa	DIN EN ISO 178	(2)
彈性模數 (彎曲測試)	2mm/min, 10 N	2300	MPa	DIN EN ISO 178	
壓縮強度	1% / 2% / 5% 5mm/min, 10 N	18/30/66	MPa	EN ISO 604	(3)
壓縮模數	5mm/min, 10 N	2000	MPa	EN ISO 604	(4)
衝擊強度(Charpy)	max. 7.5J	n.b.	kJ/m ²	DIN EN ISO 179-1eU	(5)
缺口衝擊強度(Charpy)	max. 7.5J	13	kJ/m ²	DIN EN ISO 179-1eA	
蕭氏硬度	D	84		DIN EN ISO 868	
熱特性	參數	值	單位	標準	註解
玻璃轉化溫度		218	°C	DIN EN ISO 11357	(1)
熔化溫度		n.a.	°C	DIN EN ISO 11357	(2)
使用溫度	short term	190	°C		(3)
使用溫度	long term	170	°C		
熱膨脹 (CLTE)	23-60°C, long.	6	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	
比熱		1.1	J/(g*K)	ISO 22007-4:2008	
導熱係數		0.25	W/(K*m)	ISO 22007-4:2008	
電性特性	參數	值	單位	標準	註解
表面電阻	Silver electrode, 23°C, 12% r.h.	10 ¹⁴	Ω	-	(1) Specimen in 20mm thickness
體積電阻	Silver electrode, 23°C, 12% r.h.	10 ¹⁴	Ω*cm	-	(2) Due to the black colourant and moisture uptake of the material the electrical insulation properties cannot be 100% guaranteed, despite single measurements suggesting otherwise.
介電強度	23°C, 50% r.h.	76	kV/mm	ISO 60243-1	(3) Specimen in 1mm thickness
耐電痕(CTI)	Platin electrode, 23°C, 50% r.h., solvent A	125	V	DIN EN 60112	
其他特性	參數	值	單位	標準	註解
吸水率	24h / 96h (23°C)	0.1 / 0.2	%	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)	listed (value at 0.79mm)	V0		DIN IEC 60695-11-10;	

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