

TECADUR PET natural - 型材 (棒材, 板材, 管件)

化學命名

PET (聚對苯二甲酸乙二酯)

顏色

白色 不透明

密度

1.39 g/cm³

主要特色

- 高強度
- 良好的滑動及耐磨特性
- 良好的耐磨性
- 良好的可焊接性和黏結性
- 不耐60°C以上的熱水
- 高韌性
- 良好的耐化學性
- 高剛性

目標產業

- 機械工程
- 汽車工業
- 電子學
- 食品科技

機械特性	參數	值	單位	標準	註解
抗拉強度	50mm/min	91	MPa	DIN EN ISO 527-2	(1) For tensile test: specimen type 1b
彈性模數 (張力測試)	1mm/min	3300	MPa	DIN EN ISO 527-2	(1) (2) For flexural test: support span 64mm, norm specimen.
降伏點抗拉強度	50mm/min	91	MPa	DIN EN ISO 527-2	(3) Specimen 10x10x10mm
降伏點伸長率	50mm/min	4	%	DIN EN ISO 527-2	(4) Specimen 10x10x50mm, modulus range between 0.5 and 1% compression.
斷裂伸長率	50mm/min	14	%	DIN EN ISO 527-2	(5) For Charpy test: support span 64mm, norm specimen.
抗彎強度	2mm/min, 10 N	134	MPa	DIN EN ISO 178	(2) (6) Specimen in 4mm thickness
彈性模數 (彎曲測試)	2mm/min, 10 N	3400	MPa	DIN EN ISO 178	
壓縮強度	1% / 2% / 5% 5mm/min, 10 N	21/38/89	MPa	EN ISO 604	(3)
壓縮模數	5mm/min, 10 N	2800	MPa	EN ISO 604	(4)
衝擊強度(Charpy)	max. 7.5J	150	kJ/m ²	DIN EN ISO 179-1eU	(5)
球壓式硬度		194	MPa	ISO 2039-1	(6)
熱特性	參數	值	單位	標準	註解
玻璃轉化溫度		81	°C	DIN EN ISO 11357	(1) (1) Found in public sources.
熔化溫度		244	°C	DIN EN ISO 11357	(2) Found in public sources.
使用溫度	short term	170	°C		(2) Individual testing regarding application conditions is mandatory.
使用溫度	long term	110	°C		
熱膨脹 (CLTE)	23-60°C, long.	8	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	
熱膨脹 (CLTE)	23-100°C, long.	10	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	
電性特性	參數	值	單位	標準	註解
表面電阻		10 ¹⁴	Ω	-	
體積電阻		10 ¹⁴	Ω*cm	-	
其他特性	參數	值	單位	標準	註解
吸水率	24h / 96h (23°C)	0.02 / 0.03	%	DIN EN ISO 62	(1) (1) Ø ca. 50mm, h=13mm
耐熱水/鹼		-	-	-	(2) (2) - poor resistance
耐候性		-	-	-	(3) (3) 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.
耐燃性 (UL94)	corresponding to	HB		DIN IEC 60695-11-10;	(3)

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