

TECAPET TF grey - 型材 (棒材, 板材, 管件)

化學命名
PET (聚對苯二甲酸乙二酯)

顏色
灰色 不透明

密度
1.43 g/cm³

添加物
鐵氟龍

主要特色

- 高強度
- 良好的磨損性
- 良好的耐化學性
- 高韌性
- 良好的滑動及耐磨特性
- 高剛性
- 不耐60°C以上的熱水

目標產業

- 電子學
- 食品科技
- 機械工程
- 汽車工業

機械特性	參數	值	單位	標準	註解
抗拉強度	50mm/min	78	MPa	DIN EN ISO 527-2	
彈性模數 (張力測試)	1mm/min	3200	MPa	DIN EN ISO 527-2	1)
降伏點抗拉強度	50mm/min	78	MPa	DIN EN ISO 527-2	
降伏點伸長率	50mm/min	4	%	DIN EN ISO 527-2	
斷裂伸長率	50mm/min	6	%	DIN EN ISO 527-2	
抗彎強度	2mm/min, 10 N	119	MPa	DIN EN ISO 178	2)
彈性模數 (彎曲測試)	2mm/min, 10 N	3300	MPa	DIN EN ISO 178	
壓縮強度	1% / 2% / 5% 5mm/min, 10 N	21/38/86	MPa	EN ISO 604	3)
壓縮模數	5mm/min, 10 N	2700	MPa	EN ISO 604	4)
衝擊強度(Charpy)	max. 7.5J	42	kJ/m ²	DIN EN ISO 179-1eU	5)
蕭氏硬度	D	82		DIN EN ISO 868	
熱特性	參數	值	單位	標準	註解
玻璃轉化溫度		82	°C	DIN EN ISO 11357	1)
熔化溫度		249	°C	DIN EN ISO 11357	
使用溫度	short term	170	°C		2)
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	
比熱		1.1	J/(g*K)	ISO 22007-4:2008	
導熱係數		0.30	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 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)
耐熱水/鹼		-	-		2)
耐候性		-			
耐燃性(UL94)	corresponding to	HB		DIN IEC 60695-11-10;	3)

Our information and statements reflect the current state of our knowledge and shall inform about our products and their applications. They do not assure or guarantee chemical resistance, quality of products and their merchantability in a legally binding way. Our products are not defined for use in medical or dental implants. Existing commercial patents have to be observed. The corresponding values and information are no minimum or maximum values, but guideline values that can be used primarily for comparison purposes for material selection. These values are within the normal tolerance range of product properties and do not represent guaranteed property values. Therefore they shall not be used for specification purposes. Unless otherwise noted, these values were determined by tests at reference dimensions (typically rods with diameter 40-60 mm according to DIN EN 15860) on extruded and machined specimen. As the properties depend on the dimensions of the semi-finished products and the orientation in the component (esp. in reinforced grades), the material may not be used without a separate testing under individual circumstances. The customer is solely responsible for the quality and suitability of products for the application and has to test usage and processing prior to use. Data sheet values are subject to periodic review, the most recent update can be found at www.ensingerplastics.com. Technical changes reserved.