

TECAPEEK MT grey - 型材 (棒材, 板材, 管件)

化學命名

PEEK (聚醚醚酮)

顏色

灰色 不透明

密度

1.32 g/cm³

此化合物目前處於驗證階段，其產品特性有可能會有所改變。

主要特色

- 生物相容性
- 高蠕變抗性
- 優異的耐化學性
- 良好的滑動及耐磨特性
- 優異的耐應力破裂
- 耐水解和熱蒸氣
- 良好的加工特性

目標產業

- 醫療科技

機械特性	參數	值	單位	標準	註解
抗拉強度	50mm/min	118	MPa	DIN EN ISO 527-2	(1) For tensile test: specimen type 1b
彈性模數 (張力測試)	1mm/min	4100	MPa	DIN EN ISO 527-2	(2) For Charpy test: support span 64mm, norm specimen. n.b. = not broken
降伏點抗拉強度	50mm/min	118	MPa	DIN EN ISO 527-2	
降伏點伸長率	50mm/min	5	%	DIN EN ISO 527-2	
斷裂伸長率	50mm/min	15	%	DIN EN ISO 527-2	
衝擊強度(Charpy)	max. 7,5J	n.b.	kJ/m ²	DIN EN ISO 179-1eU	2)
蕭氏硬度	D	89		DIN EN ISO 868	

熱特性	參數	值	單位	標準	註解
玻璃轉化溫度		151	°C	DIN EN ISO 11357	1)
熔化溫度		341	°C	DIN EN ISO 11357	
使用溫度	short term	300	°C		2)
使用溫度	long term	260	°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.	5	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	
熱膨脹 (CLTE)	100-150°C, long.	7	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		0.27	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 ¹²	Ω	-	

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		-		-	3)
耐燃性(UL94)	corresponding to	V0		DIN IEC 60695-11-10;	4)

→ TECAPEEK 產品是使用 Victrex® PEEK 原物料製作而成。

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.