

TECAMID 6 GF25 black - 型材 (棒材, 板材, 管件)

化學命名

PA 6 (聚醯胺 6)

顏色

黑色 不透明

密度

1.33 g/cm³

添加物

玻璃纖維

加工後所產生的數據(依德國標準氣候為主)。

主要特色

- 極高的強度
- 良好的可焊接性和黏結性
- 耐油、潤滑油及燃油
- 良好的加工特性
- 良好的尺寸穩定性
- 良好的熱變形溫度
- 良好的磨損性

目標產業

- 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	96	MPa	DIN EN ISO 527-2	(1) For tensile test: specimen type 1b
彈性模數 (張力測試)	1mm/min	5100	MPa	DIN EN ISO 527-2	(2) For flexural test: support span 64mm, norm specimen.
降伏點抗拉強度	50mm/min	96	MPa	DIN EN ISO 527-2	(3) Specimen 10x10x10mm
降伏點伸長率	50mm/min	9	%	DIN EN ISO 527-2	(4) Specimen 10x10x50mm, modulus range between 0.5 and 1% compression.
斷裂伸長率	50mm/min	11	%	DIN EN ISO 527-2	(5) For Charpy test: support span 64mm, norm specimen.
抗彎強度	2mm/min, 10 N	143	MPa	DIN EN ISO 178	(6) Specimen in 4mm thickness
彈性模數 (彎曲測試)	2mm/min, 10 N	4900	MPa	DIN EN ISO 178	
壓縮強度	1% / 2% / 5% 5mm/min, 10 N	/	MPa	EN ISO 604	
壓縮模數	5mm/min, 10 N	21/42/105			
衝擊強度(Charpy)	max. 7.5J	3900	MPa	EN ISO 604	
球壓式硬度		78	kJ/m ²	DIN EN ISO 179-1eU	
		230	MPa	ISO 2039-1	
熱特性	參數	值	單位	標準	註解
玻璃轉化溫度		49	°C	DIN EN ISO 11357	(1) Found in public sources.
熔化溫度		217	°C	DIN EN ISO 11357	(2) Found in public sources.
使用溫度	short term	180	°C		Individual testing regarding application conditions is mandatory.
使用溫度	long term	100	°C		
熱膨脹 (CLTE)	23-60°C, long.	7	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	
熱膨脹 (CLTE)	23-100°C, long.	8	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	
比熱		1.4	J/(g*K)	ISO 22007-4:2008	
導熱係數		0.40	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	-	(1) Due to the black colourant and moisture uptake of the material the electrical insulation properties cannot be 100% guaranteed, despite single measurements suggesting otherwise.
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)	0.2 / 0.3	%	DIN EN ISO 62	(1) Ø ca. 50mm, h=13mm
耐熱水/鹼		(+)		-	(2) (+) limited resistance
耐候性		(+)			(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;	

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