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/cm^3

添加物
玻璃纖維

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

加工後所產生的數據(依德國標準氣候為主)。

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 (2) For flexural test: support span 64mm, norm specimen. (3) Specimen 10x10x10mm (4) Specimen 10x10x50mm, modulus range between 0.5 and 1% compression. (5) For Charpy test: support span 64mm, norm specimen. (6) Specimen in 4mm thickness
彈性模數 (張力測試)	1mm/min	5100	MPa	DIN EN ISO 527-2	1)	
降伏點抗拉強度	50mm/min	96	MPa	DIN EN ISO 527-2		
降伏點伸長率	50mm/min	9	%	DIN EN ISO 527-2		
斷裂伸長率	50mm/min	11	%	DIN EN ISO 527-2		
抗彎強度	2mm/min, 10 N	143	MPa	DIN EN ISO 178	2)	
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	/ 21/42/105	MPa	EN ISO 604	3)	
壓縮模數	5mm/min, 10 N	3900	MPa	EN ISO 604	4)	
衝擊強度(Charpy)	max. 7,5J	78	kJ/m^2	DIN EN ISO 179-1eU	5)	
球壓式硬度		230	MPa	ISO 2039-1	6)	

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)	(1) Found in public sources. (2) Found in public sources. Individual testing regarding application conditions is mandatory.
熔化溫度		217	°C	DIN EN ISO 11357		
使用溫度	short term	180	°C		2)	
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	-	1)	

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)	(1) Ø ca. 50mm, h=13mm (2) (+) limited resistance (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.
耐熱水/鹼		(+)		-	2)	
耐候性		(+)				
耐燃性(UL94)	corresponding to	HB		DIN IEC 60695-11-10;	3)	

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