

TECAMID 66 CF20 black - 型材 (棒材, 板材, 管件)

化學命名

PA 66 (聚醯胺 66)

顏色

黑色 不透明

密度

1.23 g/cm³

添加物

碳纖維

主要特色

- 極高的剛性
- 無明確的傳導性
- 良好的磨損性
- 良好的熱變形溫度
- 良好的尺寸穩定性
- 耐油、潤滑油及燃油
- 良好的可焊接性和黏結性

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	104	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	1) (2) For flexural test: support span 64mm, norm specimen.
降伏點抗拉強度	50mm/min	104	MPa	DIN EN ISO 527-2	(3) Specimen 10x10x10mm
降伏點伸長率	50mm/min	12	%	DIN EN ISO 527-2	(4) Specimen 10x10x50mm, modulus range between 0.5 and 1% compression.
斷裂伸長率	50mm/min	13	%	DIN EN ISO 527-2	(5) For Charpy test: support span 64mm, norm specimen.
抗彎強度	2mm/min, 10 N	135	MPa	DIN EN ISO 178	2)
彈性模數 (彎曲測試)	2mm/min, 10 N	4300	MPa	DIN EN ISO 178	
壓縮強度	1% / 2% / 5% 5mm/min, 10 N	16/33/89	MPa	EN ISO 604	3)
壓縮模數	5mm/min, 10 N	3800	MPa	EN ISO 604	4)
衝擊強度(Charpy)	max. 7.5J	116	kJ/m ²	DIN EN ISO 179-1eU	5)
蕭氏硬度	D	83		DIN EN ISO 868	
熱特性	參數	值	單位	標準	註解
玻璃轉化溫度		48	°C	DIN EN ISO 11357	1)
熔化溫度		251	°C	DIN EN ISO 11357	
使用溫度	short term	170	°C		2)
使用溫度	long term	100	°C		
熱膨脹 (CLTE)	23-60°C, long.	9	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		1.4	J/(g*K)	ISO 22007-4:2008	
導熱係數		0.72	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 ⁴ -10 ¹²	Ω	DIN EN 61340-2-3	
體積電阻		10 ³ -10 ¹²	Ω*cm	DIN EN 61340-2-3	
其他特性	參數	值	單位	標準	註解
吸水率	24h / 96h (23°C)	0.1 / 0.3	%	DIN EN ISO 62	1)
耐熱水/鹼		(+)		-	2)
耐候性		(+)			3)
耐燃性(UL94)	corresponding to	HB		DIN IEC 60695-11-10;	

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