

TECAMID 66 GF30 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

1.34 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

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

目標產業

- 機械工程
- 航空與航太科技
- 汽車工業

機械特性	參數	值	單位	標準	註解
抗拉強度	50mm/min	91	MPa	DIN EN ISO 527-2	(1) For tensile test: specimen type 1b
彈性模數 (張力測試)	1mm/min	5500	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	91	MPa	DIN EN ISO 527-2	(3) Specimen 10x10x10mm
降伏點伸長率	50mm/min	8	%	DIN EN ISO 527-2	(4) Specimen 10x10x50mm, modulus range between 0.5 and 1% compression.
斷裂伸長率	50mm/min	14	%	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) (6) Specimen in 4mm thickness
彈性模數 (彎曲測試)	2mm/min, 10 N	4700	MPa	DIN EN ISO 178	
壓縮強度	1% / 2% / 5% 5mm/min, 10 N	25/46/104	MPa	EN ISO 604	3)
壓縮模數	5mm/min, 10 N	4100	MPa	EN ISO 604	4)
衝擊強度(Charpy)	max. 7,5J	97	kJ/m ²	DIN EN ISO 179-1eU	5)
球壓式硬度		216	MPa	ISO 2039-1	6)
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) (1) Found in public sources.
熔化溫度		254	°C	DIN EN ISO 11357	(2) Found in public sources.
使用溫度	short term	180	°C	-	2) Individual testing regarding application conditions is mandatory.
使用溫度	long term	110	°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	
比熱		1.2	J/(g*K)	ISO 22007-4:2008	
導熱係數		0.39	W/(K*m)	ISO 22007-4:2008	
電性特性	參數	值	單位	標準	註解
表面電阻	Silver electrode, 23°C, 12% r.h.	10 ¹⁴	Ω	DIN IEC 60093	1) (1) Specimen in 20mm thickness
體積電阻	Silver electrode, 23°C, 12% r.h.	10 ¹⁴	Ω*cm	DIN IEC 60093	2) (2) Due to the black colourant and moisture uptake of the material the electrical insulation properties cannot be 100% guaranteed, despite single measurements suggesting otherwise.
介電強度	23°C, 50% r.h.	35	kV/mm	ISO 60243-1	3) (3) Specimen in 1mm thickness
耐電痕(CTI)	Platin electrode, 23°C, 50% r.h., solvent A	550 / 475	V	DIN EN 60112	
其他特性	參數	值	單位	標準	註解
吸水率	24h / 96h (23°C)	0.1 / 0.2	%	DIN EN ISO 62	1) (1) Ø ca. 50mm, h=13mm
耐熱水鹼		(+)		-	2) (2) (+) limited resistance
耐候性		(+)		-	3) (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;	3)

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