TECAMID 6 natural - 型材 (棒材,板材,管件)

化學命名
PA 6 (聚醯胺 6)

顏色
象牙色 不透明

密度
1.14 g/cm^3

加工後所產生的數據(依德國標準氣候為主)。

主要特色
- 高韌性
- 耐油、潤滑油及燃油
- 電絕緣
- 良好的磨損性
- 良好的可焊接性和黏結性
- 良好的滑動及耐磨特性
- 高強度
- 良好的加工特性

目標產業
- 機械工程
- 航空與航太科技
- 電子學
- 食品科技
- 汽車工業

機械特性	參數	值	單位	標準		註解
抗拉強度	50mm/min	79	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. n.b. = not broken
彈性模數 (張力測試)	1mm/min	3300	MPa	DIN EN ISO 527-2	1)	
降伏點抗拉強度	50mm/min	78	MPa	DIN EN ISO 527-2		
降伏點伸長率	50mm/min	4	%	DIN EN ISO 527-2		
斷裂伸長率	50mm/min	130	%	DIN EN ISO 527-2		
抗彎強度	2mm/min, 10 N	100	MPa	DIN EN ISO 178	2)	
彈性模數 (彎曲測試)	2mm/min, 10 N	2900	MPa	DIN EN ISO 178		
壓縮強度	1% / 2% / 5% 5mm/min, 10 N	24/41/86	MPa	EN ISO 604	3)	
壓縮模數	5mm/min, 10 N	2700	MPa	EN ISO 604	4)	
衝擊強度(Charpy)	max. 7,5J	n.b.	kJ/m^2	DIN EN ISO 179-1eU	5)	
缺口衝擊強度(Charpy)	max. 7,5J	7	kJ/m^2	DIN EN ISO 179-1eA		
蕭氏硬度	D	79		DIN EN ISO 868		

熱特性	參數	值	單位	標準		註解
玻璃轉化溫度		45	°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		221	°C	DIN EN ISO 11357		
使用溫度	short term	160	°C		2)	
使用溫度	long term	100	°C			
熱膨脹 (CLTE)	23-60°C, long.	12	10^{-5} K^{-1}	DIN EN ISO 11359-1;2		
熱膨脹 (CLTE)	23-100°C, long.	13	10^{-5} K^{-1}	DIN EN ISO 11359-1;2		
比熱		1.6	J/(g*K)	ISO 22007-4:2008		
導熱係數		0.37	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	-	1)	(1) Specimen in 20mm thickness (2) Specimen in 1mm thickness
體積電阻	Silver electrode, 23°C, 12% r.h.	10^{14}	Ω*cm	-		
介電強度	23°C, 50% r.h.	31	kV/mm	ISO 60243-1	2)	
耐電痕(CTI)	Platin electrode, 23°C, 50% r.h., solvent A	600	V	DIN EN 60112		

其他特性	參數	值	單位	標準		註解
吸水率	24h / 96h (23°C)	0.3 / 0.6	%	DIN EN ISO 62	1)	(1) Ø ca. 50mm, h=13mm (2) (+) limited resistance (3) - poor resistance (4) 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		-		-	3)	
耐燃性(UL94)	corresponding to	HB		DIN IEC 60695-11-10;	4)	

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