

## TECAPET white - 型材(棒材,板材,管件)

### 化學命名

PET (聚對苯二甲酸乙二酯)

### 顏色

白色 不透明

### 密度

1.36 g/cm<sup>3</sup>

### 主要特色

- 極高的強度
- 良好的耐化學性
- 電絕緣
- 易於研磨
- 良好的滑動及耐磨特性
- 良好的可焊接性和黏結性
- 良好的加工特性
- 高韌性

### 目標產業

- 機械工程
- 汽車工業
- 電子學
- 能源工業
- 食品科技

### 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
彈性模數 (張力測試)	1mm/min	3100	MPa	DIN EN ISO 527-2 1)
降伏點抗拉強度	50mm/min	79	MPa	DIN EN ISO 527-2
降伏點伸長率	50mm/min	5	%	DIN EN ISO 527-2
斷裂伸長率	50mm/min	10	%	DIN EN ISO 527-2
抗彎強度	2mm/min, 10 N	121	MPa	DIN EN ISO 178 2)
彈性模數 (彎曲測試)	2mm/min, 10 N	3200	MPa	DIN EN ISO 178
壓縮強度	1% / 2% / 5% 5mm/min, 10 N	19/35/83	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	81	kJ/m <sup>2</sup>	DIN EN ISO 179-1eU 5)
缺口衝擊強度(Charpy)	max. 7,5J	4	kJ/m <sup>2</sup>	DIN EN ISO 179-1eA
蕭氏硬度	D	84		DIN EN ISO 868

### 熱特性

參數	值	單位	標準	註解
玻璃轉化溫度	81	°C	DIN EN ISO 11357	1)
熔化溫度	244	°C	DIN EN ISO 11357	
使用溫度	short term	170	°C	2)
使用溫度	long term	110	°C	
熱膨脹 (CLTE)	23-60°C, long.	8	10 <sup>-5</sup> K <sup>-1</sup>	DIN EN ISO 11359-1;2
熱膨脹 (CLTE)	23-100°C, long.	10	10 <sup>-5</sup> K <sup>-1</sup>	DIN EN ISO 11359-1;2
比熱	1.2	J/(g*K)	ISO 22007-4:2008	
導熱係數	0.31	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 <sup>14</sup>	Ω	-	
體積電阻	10 <sup>14</sup>	Ω*cm	-	

### 耐電痕(CTI)

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)	0.02 / 0.03	% DIN EN ISO 62	1)
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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