

TECANYL VH2 grey - 型材 (棒材, 板材, 管件)

化學命名

PPE (聚苯醚)

顏色

灰色 不透明

密度

1.1 g/cm³

添加物

阻燃劑 (無鹵素)

主要特色

- 根據FAR 25.853 防火測試
- 絕佳的尺寸穩定性
- 優異的耐化學性
- 根據UL94 V-0 耐燃測試
- 低煙排放
- 低吸濕性
- 良好的電絕緣性

目標產業

- 航空與航太內裝
- 航空與航太科技
- 鐵路內裝
- 運輸工具

機械特性	參數	值	單位	標準	註解
抗拉強度	50 mm/min	57	MPa	DIN EN ISO 527-2	(1) For tensile test: specimen type 1b
彈性模數 (張力測試)	1mm/min	2300	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	57	MPa	DIN EN ISO 527-2	(3) Specimen 10x10x10mm
降伏點伸長率	50mm/min	14	%	DIN EN ISO 527-2	(4) Specimen 10x10x50mm, modulus range between 0.5 and 1% compression.
斷裂伸長率	50mm/min	22	%	DIN EN ISO 527-2	(5) For Charpy test: support span 64mm, norm specimen.
抗彎強度	2mm/min, 10 N	95	MPa	DIN EN ISO 178	(2) (6) Specimen in 4mm thickness
彈性模數 (彎曲測試)	2mm/min, 10 N	2070	MPa	DIN EN ISO 178	
壓縮強度	1% / 2% / 5%	19/34/78	MPa	EN ISO 604	(3)
壓縮模數	5mm/min	1300	MPa	EN ISO 604	(4)
衝擊強度(Charpy)	max. 7.5J	96	kJ/m ²	DIN EN ISO 179-1eU	(5)
缺口衝擊強度(Charpy)	max. 7.5J	11	kJ/m ²	DIN EN ISO 179-1eA	
球壓式硬度		141	MPa	ISO 2039-1	(6)
熱特性	參數	值	單位	標準	註解
玻璃轉化溫度		151	°C	DIN EN ISO 11357	(1) Found in public sources. Individual testing regarding application conditions is mandatory.
使用溫度	long term	85	°C	-	
使用溫度	short term	110	°C	-	(1)
熱膨脹 (CLTE)	23-60°C, longitudinal	8,1	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	
熱膨脹 (CLTE)	23-100°C, longitudinal	8,1	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	
其他特性	參數	值	單位	標準	註解
吸水率	24h / 96h (23°C)	0.09/0.15	%	DIN EN ISO 62	(1) passed, 3 mm specimen
耐燃性	60 sec. Vertical Bunsen Burner test FAR 25.853 Appx F, Prt 1, (a), 1, (Air)	+		FAR 25.853	(1) (2) Units: 1.5 mm
耐燃性(UL94)		V0		-	(2) (3) ASTM Test Method 60695-2
耐燃性	Glow Wire Flammability Index 960°C passes @	1.0	mm	-	(3) (4) ASTM Test Method 60695-2
耐燃性	Glow Wire Ignitability Temp, 1.0 mm	775	°C	-	(4) (5) ASTM Test Method 60695-2
耐燃性	Glow Wire Ignitability Temp, 1.5 mm	775	°C	-	(5) (6) ASTM Test Method 60695-2
耐燃性	Glow Wire Ignitability Temp, 2.0 mm	775	°C	-	(6) (7) ASTM Test Method 60695-2
耐燃性	Glow Wire Ignitability Temp, 3.0 mm	800	°C	-	(7) (8) passed, FAA Smoke Density Test (resin data)
耐燃性	FAR 25.853 Appx F, Prt 1, (a), 1, (Air)	+		FAR 25.853	(8) (9) passed, Toxicity - Draeger Tube (resin data)
耐燃性	FAR 25.853 Appx F, Prt 1, (a), 1, (Air)	+		-	(9) (10) Flame Spread Index
耐燃性	ASTM E 162 (rail)	~15		-	(10) (11) passed, FAR 25.853
耐燃性	ASTM E 662 (Air/Rail) Ds @ 1.5 min	11-13		-	(11) (12) passed, FAR 25.853
耐燃性	ASTM E 662 (Air/Rail) Ds @ 4.0 min	20-40		-	(12)

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