

TECANYL VH2 Black - Stock Shapes

Chemical Designation

PPO (Polyphenylene oxide)

Colour black

Density

1.12 g/cm³

Main features

- → excellent dimensional stability
- → very good chemical resistance
- → flame retardant according to UL94 V-0
- → low smoke emissions
- → low moisture absorption
- → good electrically insulating

Target Industries

- → Aircraft and Aerospace Interiors
- → aircraft and aerospace technology
- → Railway Interiors
- → transportation

Mechanical properties	condition	value		test method		comment
Modulus of elasticity (tensile test)		322,000	00 psi A	ASTM D 638	_	
Tensile strength at yield		9280	psi	ASTM D 638		
Tensile strength at break		7690	psi	ASTM D 638		
Flexural strength		14,500	psi	ASTM D 790		comment (1) 3 mm specimen (2) ASTM Test Method 60695-2 (3) FAR 25.853 (4) Units: 1.5 mm (5) Toxicity - Draeger Tube (resin data) (6) ASTM Test Method 60695-2 (7) ASTM Test Method 60695-2 (8) FAR 25.853 (9) FAA Smoke Density Test (resin data) (10) ASTM Test Method 60695-2 (11) Units: mm ASTM Test Method 60695-2 (11) Units: mm ASTM Test Method 60695-2 (12) Flame Spread Index
Modulus of elasticity (flexural test)	@ 73 °F	342,000	psi	ASTM D 790		
Impact strength (Izod)	@ 73 °F	5.6	ft-lbs/in	ASTM D 256		
Thermal properties	condition	value		test method		
Deflection temperature	@ 264 psi	252	°F	ASTM D 648	_	
Other properties	condition	value		test method		
Flammability	60 sec. Vertical Bunsen Burner test FAR 25.853 Appx F, Prt 1, (a), 1, (Air)	Passes		FAR 25.853	1)	
Flammability	Glow Wire Ignitability Temp, 1.5 mm	775	°C	-	2)	
Flammability	ASTM E 662 (Air/Rail) Ds @ 4.0 min	20-40 passes		-	3)	
Flammability (UL94)		V0		-	4)	
Flammability	FAR 25.853 Appx F, Prt 1, (a), 1, (Air)	Passes		-	5)	
Flammability	Glow Wire Ignitability Temp, 3.0 mm	800	°C	-	6)	
Flammability	Glow Wire Ignitability Temp, 1.0 mm	775	°C	-	7)	
Flammability	ASTM E 662 (Air/Rail) Ds @ 1.5 min	11-13 Passes		-	8)	
Flammability	FAR 25.853 Appx F, Prt 1, (a), 1, (Air)	Passes		FAR 25.853	9)	
Flammability	Glow Wire Ignitability Temp, 2.0 mm	775	°C	-	10)	
Flammability	ASTM E 662 (Air/Rail) Ds @ 20 min	73-106 Meets FAR Reqt's		-		
Flammability	Glow Wire Flammability Index 960°C passes @	1.0		-	11)	
Flammability	ASTM E 162 (rail)	~15		-	12)	

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