

TECANYL VH2 Black - Stock Shapes (rods, plates, tubes)

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	unit	test method	comment
Modulus of elasticity (tensile test)		322,000	psi	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	
Modulus of elasticity (flexural test)	@ 73 °F	342,000	psi	ASTM D 790	
Notched impact strength (Izod)	@ 73 °F	5.6	ft-lbs/in	ASTM D 256	
Thermal properties	condition	value	unit	test method	comment
Deflection temperature	@ 264 psi	252	°F	ASTM D 648	
Other properties	condition	value	unit	test method	comment
Flammability (UL94)		V0	-	1)	(1) Units: 1.5 mm
Flammability	Glow Wire Flammability Index 960°C passes @	1.0	-	2)	(2) Units: mm ASTM Test Method 60695-2
Flammability	Glow Wire Ignitability Temp, 1.0 mm	775	°C	3)	(3) ASTM Test Method 60695-2
Flammability	Glow Wire Ignitability Temp, 1.5 mm	775	°C	4)	(4) ASTM Test Method 60695-2
Flammability	Glow Wire Ignitability Temp, 2.0 mm	775	°C	5)	(5) ASTM Test Method 60695-2
Flammability	Glow Wire Ignitability Temp, 3.0 mm	800	°C	6)	(6) ASTM Test Method 60695-2
Flammability	60 sec. Vertical Bunsen Burner test FAR 25.853 Appx F, Prt 1, (a), 1, (Air)	Passes	-	7)	(7) 3 mm specimen
Flammability	FAR 25.853 Appx F, Prt 1, (a), 1, (Air)	Passes	-	8)	(8) FAA Smoke Density Test (resin data)
Flammability	FAR 25.853 Appx F, Prt 1, (a), 1, (Air)	Passes	-	9)	(9) Toxicity - Draeger Tube (resin data)
Flammability	ASTM E 162 (rail)	~15	-	10)	(10) Flame Spread Index
Flammability	ASTM E 662 (Air/Rail) Ds @ 1.5 min	11-13 Passes	-	11)	(11) FAR 25.853
Flammability	ASTM E 662 (Air/Rail) Ds @ 4.0 min	20-40 passes	-	12)	(12) FAR 25.853
Flammability	ASTM E 662 (Air/Rail) Ds @ 20 min	73-106 Meets FAR Req't's	-		

This information reflects the current state of our knowledge and is intended only to assist and advise. It is given without obligation or liability. It does not assure or guarantee chemical resistance, quality of products or their suitability in any legally binding way. Values are not minimum or maximum values, but guidelines that can be used for comparative purposes in material selection. They are within the normal range of product properties and do not represent guaranteed property values. Testing under individual application circumstances is always recommended. Data is obtained from extruded shapes material unless otherwise noted. References to FDA compliance refer to the resins from which the products were made unless otherwise noted. All trade and patent rights should be observed. All rights reserved. Data sheet values are subject to periodic review, the most recent update can be found at www.ensingerplastics.com.

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