

Product Texts

VALOX ENH8560 is a 30% glass reinforced, non-chlorinated/brominated flame retardant Polybutylene Terephthalate/Polyethylene Terephthalate (PBT/PET) injection moldable grade with excellent chemical resistance. It has a UL94V0@1.5mm and 5VA@2.0mm flame rating. This is a good candidate for a variety of applications needing a sustainable FR PBT/PET solution.

UL Yellow Card Link [F45329-100705592](https://www.ul.com/yellow-card-link/F45329-100705592)

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	25	cm ³ /10min	ISO 1133
Temperature	265	°C	-
Load	5	kg	-
Melt flow index, MFI	11	g/10min	ISO 1133
Temperature	250	°C	-
Load	5	kg	-
ASTM Data			
Melt Flow Index, MFI	5	g/10min	ASTM D 1238
Temperature	265	°C	-
Load	2.16	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	12000	MPa	ISO 527
Yield stress	105	MPa	ISO 527
Yield strain	1	%	ISO 527
Stress at break	105	MPa	ISO 527
Strain at break	2	%	ISO 527
Flexural modulus	10000	MPa	ISO 178
Charpy notched impact strength, +23°C	5	kJ/m ²	ISO 179/1eA
Izod impact strength, +23°C, 4mm	30	kJ/m ²	ISO 180/1U
Izod impact strength, -30°C, 4mm	27	kJ/m ²	ISO 180/1U
Izod notched impact strength, +23°C, 4mm	7	kJ/m ²	ISO 180/1A
Izod notched impact strength, -30°C, 4mm	7	kJ/m ²	ISO 180/1A
Rockwell hardness	R 118	-	ISO 2039-2
Ball indentation hardness	166	MPa	ISO 2039-1
ASTM Data			
Tensile Modulus	12000	MPa	ASTM D 638
Tensile Strength at Yield	103	MPa	ASTM D 638
Tensile Strength at Break	103	MPa	ASTM D 638
Elongation at Yield	1	%	ASTM D 638
Elongation at Break	2	%	ASTM D 638
Flexural Modulus	10000	MPa	ASTM D 790
Izod Impact notched, 1/8 in	60	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	60	J/m	ASTM D 256
Temperature	-30	°C	-
Izod Impact unnotched, 1/8 in	450	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	180	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	215	°C	ISO 75-1/-2
Vicat softening temperature, A	215	°C	ISO 306
Vicat softening temperature, B	203	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	201	°C	ISO 306
Burning behav. at 1.5 mm nom. thickn.	V-0	class	IEC 60695-11-10
Thickness tested	1.5	mm	-
Burning behav. 5V at thickness h	5VA	class	IEC 60695-11-20
Thickness tested	2.0	mm	-
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
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VALOX™ FR Resin ENH8560 - Europe
(PBT+PET)-GF30

Saudi Basic Industries Corporation (SABIC)

Glow Wire Ignition Temperature (GWIT)	750	°C	IEC 60695-2-13
GWIT - thickness tested (1)	1	mm	-
Glow Wire Ignition Temperature (GWIT)	775	°C	IEC 60695-2-13
GWIT - thickness tested (2)	2	mm	-
Glow Wire Ignition Temperature (GWIT)	825	°C	IEC 60695-2-13
GWIT - thickness tested (3)	3	mm	-
ASTM Data			
DTUL @ 66 psi	210	°C	ASTM D 648
DTUL @ 264 psi	196	°C	ASTM D 648
Vicat Temperature	196	°C	ASTM D 1525

Electrical properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 1MHz	3.6	-	IEC 62631-2-1
Dissipation factor, 1MHz	120	E-4	IEC 62631-2-1
Volume resistivity	1E13	Ohm*m	IEC 62631-3-1
Surface resistivity	>1E15	Ohm	IEC 62631-3-2
Electric strength	35	kV/mm	IEC 60243-1
Comparative tracking index	425	-	IEC 60112
ASTM Data			
Dielectric Strength, Short Time	8	kV/mm	ASTM D 149
Dissipation Factor, 1 MHz	0.012	-	ASTM D 150
Dielectric Constant, 1 MHz	3.6	-	ASTM D 150
Volume Resistivity	1E15	Ohm*cm	ASTM D 257

Other properties	Value	Unit	Test Standard
Water absorption	0.3	%	Sim. to ISO 62
Humidity absorption	0.05	%	Sim. to ISO 62
Density	1580	kg/m ³	ISO 1183
Water Absorption, 24hr	0.07	%	ASTM D 570
Density	1580	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	110 - 120	°C	-
Pre-drying - Time	4 - 6	h	-
Processing humidity	≤0.02	%	-
Melt temperature	260 - 285	°C	-
Mold temperature	60 - 110	°C	-
Feed temperature	40 - 60	°C	-
Zone 1	240 - 260	°C	-
Zone 2	255 - 280	°C	-
Zone 3	260 - 280	°C	-

Characteristics

Processing

Injection Molding

Additives

Flame retarding agent

Special Characteristics

Flame retardant

Chemical Resistance

General Chemical Resistance

Regional Availability

Europe