

Product Texts

VALOX ENH4565 is a 33% glass reinforced, non-chlorinated/brominated flame retardant Polybutylene Terephthalate (PBT) injection moldable grade with excellent chemical resistance. It has a UL94V0@0.75mm flame rating. This is a good candidate for a variety of applications needing a sustainable FRPBT solution.

UL Yellow Card Link [F207780-101188061](https://www.ul.com/yellow-card/F207780-101188061)

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	20	cm ³ /10min	ISO 1133
Temperature	265	°C	-
Load	5	kg	-
ASTM Data			
Melt Flow Index, MFI	24	g/10min	ASTM D 1238
Temperature	250	°C	-
Load	5	kg	-
Mechanical properties			
ISO Data			
Tensile Modulus	11500	MPa	ISO 527
Yield stress	140	MPa	ISO 527
Yield strain	2.4	%	ISO 527
Stress at break	140	MPa	ISO 527
Strain at break	2.4	%	ISO 527
Flexural modulus	9400	MPa	ISO 178
Izod notched impact strength, +23°C, 4mm	14	kJ/m ²	ISO 180/1A
Izod notched impact strength, -30°C, 4mm	14	kJ/m ²	ISO 180/1A
ASTM Data			
Tensile Modulus	11600	MPa	ASTM D 638
Tensile Strength at Yield	137	MPa	ASTM D 638
Tensile Strength at Break	137	MPa	ASTM D 638
Elongation at Yield	2.4	%	ASTM D 638
Elongation at Break	2.4	%	ASTM D 638
Flexural Modulus	9400	MPa	ASTM D 790
Izod Impact notched, 1/8 in	80	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	800	J/m	ASTM D 256
Thermal properties			
ISO Data			
Burning behav. at thickness h	V-0	class	IEC 60695-11-10
Thickness tested	0.8	mm	-
Burning behav. 5V at thickness h	5VB	class	IEC 60695-11-20
Thickness tested	3.0	mm	-
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature (GWIT)	775	°C	IEC 60695-2-13
GWIT - thickness tested (3)	3	mm	-
ASTM Data			
DTUL @ 66 psi	218	°C	ASTM D 648
DTUL @ 264 psi	206	°C	ASTM D 648
Vicat Temperature	205	°C	ASTM D 1525
Other properties			
Water absorption	0.23	%	Sim. to ISO 62
Humidity absorption	0.06	%	Sim. to ISO 62
Density	1610	kg/m ³	ISO 1183
Density	1600	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	110 - 120	°C	-
Pre-drying - Time	2 - 4	h	-
Processing humidity	≤0.02	%	-
Melt temperature	245 - 260	°C	-
Mold temperature	40 - 100	°C	-
Feed temperature	40 - 60	°C	-
Zone 1	230 - 240	°C	-
Zone 2	235 - 250	°C	-
Zone 3	240 - 260	°C	-

Characteristics

Processing

Injection Molding

Additives

Flame retarding agent

Special Characteristics

Flame retardant

Chemical Resistance

General Chemical Resistance

Regional Availability

Asia Pacific