

**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 [F45329-103390789](https://www.ul.com/yellow-card/F45329-103390789)

<b>Processing/Physical Characteristics</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
Melt volume-flow rate, MVR	20	cm <sup>3</sup> /10min	ISO 1133
Temperature	265	°C	-
Load	5	kg	-
<b>ASTM Data</b>			
Melt Flow Index, MFI	24	g/10min	ASTM D 1238
Temperature	250	°C	-
Load	5	kg	-
<b>Mechanical properties</b>			
<b>ISO Data</b>			
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 <sup>2</sup>	ISO 180/1A
Izod notched impact strength, -30°C, 4mm	14	kJ/m <sup>2</sup>	ISO 180/1A
<b>ASTM Data</b>			
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
<b>Thermal properties</b>			
<b>ISO Data</b>			
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	-
<b>ASTM Data</b>			
DTUL @ 66 psi	218	°C	ASTM D 648
DTUL @ 264 psi	206	°C	ASTM D 648
Vicat Temperature	205	°C	ASTM D 1525
<b>Other properties</b>			
Water absorption	0.23	%	Sim. to ISO 62
Humidity absorption	0.06	%	Sim. to ISO 62
Density	1610	kg/m <sup>3</sup>	ISO 1183
Density	1600	kg/m <sup>3</sup>	ASTM D 792

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

**Characteristics****Processing**

Injection Molding

**Additives**

Flame retarding agent

**Special Characteristics**

Flame retardant

**Chemical Resistance**

General Chemical Resistance

**Regional Availability**

Europe