

VALOX* HR426 Resin

General Information

Product Description

AUTOMOTIVE. 30% GR, hydrolytically stable PBT. Excellent strength, stiffness and dimensional stability.

General

Filler / Reinforcement	• Glass Fiber Reinforcement, 30% Filler by Weight
Features	• Good Dimensional Stability • Good Strength • Good Stiffness • Hydrolytically Stable
Uses	• Automotive Applications
Processing Method	• Injection Molding

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.53	g/cm ³	ASTM D792
Specific Volume	0.658	cm ³ /g	ASTM D792
Molding Shrinkage - Flow			Internal Method
-- ²	0.30 to 0.50	%	
-- ³	0.50 to 0.80	%	
Molding Shrinkage - Across Flow			Internal Method
-- ²	0.40 to 0.60	%	
-- ⁴	0.60 to 0.90	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ⁵ (Break)	117	MPa	ASTM D638
Tensile Elongation ⁵ (Break)	3.0	%	ASTM D638
Flexural Modulus ⁶ (50.0 mm Span)	6890	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	91	J/m	ASTM D256
Unnotched Izod Impact (23°C)	800	J/m	ASTM D4812
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	118		ASTM D785

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SABIC Innovative Plastics - Polybutylene Terephthalate

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 0.45 MPa, Unannealed, 6.40 mm	218	°C	ASTM D648
Deflection Temperature Under Load 1.8 MPa, Unannealed, 6.40 mm	207	°C	ASTM D648
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.9E+16	ohm·cm	ASTM D257
Dielectric Strength (3.20 mm, in Oil)	19	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
50 Hz	3.24		
60 Hz	3.24		
1 MHz	3.13		
Dissipation Factor			ASTM D150
50 Hz	0.0030		
60 Hz	0.0030		
1 MHz	0.014		
Arc Resistance (PLC) ⁷	PLC 5		ASTM D495
Flammability	Nominal Value	Unit	Test Method
Flame Rating - UL (0.762 mm)	HB		UL 94
UL	Nominal Value	Unit	Test Method
RTI Str	140	°C	UL 746
RTI Imp	140	°C	UL 746
RTI Elec	140	°C	UL 746
Comparative Tracking Index (CTI) (PLC)	PLC 1		UL 746
High Voltage Arc Tracking Rate (HVTR) (PLC)	PLC 2		UL 746
Hot-wire Ignition (HWI) (PLC)	PLC 0		UL 746
High Amp Arc Ignition (HAI) (PLC)	PLC 3		UL 746
Additional Information	Nominal Value	Unit	Test Method
50% Loss of TS			Internal Method
85°C, 94% RH	5376.0	hr	
120°C, 100% RH	216.0	hr	

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	60.0 to 76.7	°C
Drying Time	4.0 to 5.0	hr
Drying Time, Maximum	8.0	hr
Suggested Max Moisture	0.050	%
Suggested Shot Size	40 to 80	%
Rear Temperature	238 to 254	°C
Middle Temperature	243 to 260	°C
Front Temperature	249 to 266	°C
Nozzle Temperature	243 to 260	°C

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Injection	Nominal Value	Unit
Processing (Melt) Temp	249 to 266	°C
Mold Temperature	65.6 to 87.8	°C
Back Pressure	0.345 to 0.689	MPa
Screw Speed	50 to 80	rpm
Vent Depth	0.025 to 0.038	mm

Notes

¹ Typical properties: these are not to be construed as specifications.

² 1.5 to 3.2 mm

³ 3.2 to 4.6 mm

⁴ 3.2-4.6 mm

⁵ Type I, 5.0 mm/min

⁶ 1.3 mm/min

⁷ Tungsten Electrode