



VALOX™ RESIN HR426

REGION AMERICAS

DESCRIPTION

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

TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	117	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	3	%	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	6890	MPa	ASTM D790
Hardness, Rockwell R	118	-	ASTM D785
IMPACT			
Izod Impact, unnotched, 23°C	801	J/m	ASTM D4812
Izod Impact, notched, 23°C	90	J/m	ASTM D256
THERMAL			
HDT, 0.45 MPa, 6.4 mm, unannealed	218	°C	ASTM D648
HDT, 1.82 MPa, 6.4 mm, unannealed	207	°C	ASTM D648
Relative Temp Index, Elec	140	°C	UL 746B
Relative Temp Index, Mech w/impact	140	°C	UL 746B
Relative Temp Index, Mech w/o impact	140	°C	UL 746B
PHYSICAL			
Specific Gravity	1.53	-	ASTM D792
Specific Volume	0.65	cm ³ /g	ASTM D792
Mold Shrinkage, flow, 1.5-3.2 mm	0.3 – 0.5	%	SABIC method
Mold Shrinkage, flow, 3.2-4.6 mm	0.5 – 0.8	%	SABIC method
Mold Shrinkage, xflow, 1.5-3.2 mm	0.4 – 0.6	%	SABIC method
Mold Shrinkage, xflow, 3.2-4.6 mm	0.6 – 0.9	%	SABIC method
ELECTRICAL			
Volume Resistivity	1.9E+16	Ω.cm	ASTM D257
Dielectric Strength, in oil, 3.2 mm	19.1	kV/mm	ASTM D149
Relative Permittivity, 50/60 Hz	3.24	-	ASTM D150
Relative Permittivity, 1 MHz	3.13	-	ASTM D150
Dissipation Factor, 50/60 Hz	0.003	-	ASTM D150
Dissipation Factor, 1 MHz	0.014	-	ASTM D150
Arc Resistance, Tungsten {PLC}	5	PLC Code	ASTM D495
Hot Wire Ignition {PLC}	0	PLC Code	UL 746A
High Voltage Arc Track Rate {PLC}	2	PLC Code	UL 746A
High Ampere Arc Ign, surface {PLC}	3	PLC Code	UL 746A
Comparative Tracking Index (UL) {PLC}	1	PLC Code	UL 746A
FLAME CHARACTERISTICS			
UL Yellow Card Link	E121562-220817	-	-
UL Recognized, 94HB Flame Class Rating	0.76	mm	UL 94

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HYDROLYTIC STABILITY			
50% Loss of TS at 120°C/ 100% RH	0	Days	SABIC method
50% Loss of TS at 85°C/94% RH	>200	Days	SABIC method
INJECTION MOLDING			
Drying Temperature	60 – 75	°C	
Drying Time	4 – 5	Hrs	
Drying Time (Cumulative)	8	Hrs	
Maximum Moisture Content	0.05	%	
Melt Temperature	250 – 265	°C	
Nozzle Temperature	245 – 260	°C	
Front - Zone 3 Temperature	250 – 265	°C	
Middle - Zone 2 Temperature	245 – 260	°C	
Rear - Zone 1 Temperature	240 – 255	°C	
Mold Temperature	65 – 90	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	50 – 80	rpm	
Shot to Cylinder Size	40 – 80	%	
Vent Depth	0.025 – 0.038	mm	