

Valox* Resin SHF4910

Europe-Africa-Middle East: COMMERCIAL

6.5% glass reinforced, Super High Flow, flame retardant PBT.

Property

TYPICAL PROPERTIES ⁽¹⁾			
	Value	Unit	Standard
MECHANICAL			
Tensile Stress, yield, 5 mm/min	70	MPa	ISO 527
Tensile Stress, break, 5 mm/min	70	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	3	%	ISO 527
Tensile Strain, break, 5 mm/min	3	%	ISO 527
Tensile Modulus, 1 mm/min	3600	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	110	MPa	ISO 178
Flexural Modulus, 2 mm/min	3200	MPa	ISO 178
IMPACT			
Izod Impact, unnotched 80*10*4 +23°C	22	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	5	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	5	kJ/m ²	ISO 179/1eA
THERMAL			
CTE, -40°C to 40°C, flow	8.E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.E-04	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	174	°C	ISO 306
Vicat Softening Temp, Rate B/120	175	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	125	°C	ISO 75/Af
PHYSICAL			
Mold Shrinkage on Tensile Bar, flow (2)	1 - 1.3	%	SABIC Method
Mold Shrinkage on Tensile Bar, xflow (2)	1.3 - 1.7	%	SABIC Method
Density	1.46	g/cm ³	ISO 1183
Water Absorption, (23°C/sat)	0.26	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.06	%	ISO 62
Melt Volume Rate, MVR at 250°C/2.16 kg	23	cm ³ /10 min	ISO 1133
Melt Viscosity, 250°C, 1500 sec-1	115	Pa-s	ISO 11443
ELECTRICAL			
Volume Resistivity	> 1.E+15	Ohm-cm	IEC 60093
Surface Resistivity, ROA	> 1.E+13	Ohm	IEC 60093
Dielectric Strength, in oil, 0.8 mm	50	kV/mm	IEC 60243-1
Dielectric Strength, in oil, 1.6 mm	30.7	kV/mm	IEC 60243-1
Comparative Tracking Index	275	V	IEC 60112
FLAME CHARACTERISTICS			
UL Compliant, 94V-0 Flame Class Rating (3)(4)	0.8	mm	UL 94 by GE
Glow Wire Flammability Index 960°C, passes at	1	mm	IEC 60695-2-12
Oxygen Index (LOI)	27	%	ISO 4589

Source GMD, last updated:03/22/2007

Processing

Parameter	Value	Unit
Injection Molding		
Drying Temperature	110 - 120	°C
Drying Time	2 - 4	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	250 - 270	°C
Nozzle Temperature	240 - 260	°C
Front - Zone 3 Temperature	245 - 265	°C
Middle - Zone 2 Temperature	240 - 255	°C
Rear - Zone 1 Temperature	230 - 245	°C
Hopper Temperature	40 - 60	°C
Mold Temperature	40 - 100	°C

Source GMD, last updated:03/22/2007

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR [\(LOCAL SALES OFFICE\)](#) FOR AVAILABILITY IN YOUR REGION

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.

(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

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