



VALOX™ Resin HX3061HP
Americas: COMMERCIAL

PBT for compounding/fibers only. Not intended for injection molding. Biocompatible. Melt viscosity: 250C at 21.6 kgf is 1450-1850 poise. Available in Natural color (1001) only.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	590	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	260	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	3.7	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	140	%	ASTM D 638
Tensile Modulus, 5 mm/min	26500	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	840	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	24400	kgf/cm ²	ASTM D 790
Tensile Stress, yield, 50 mm/min	50	MPa	ISO 527
Tensile Stress, break, 50 mm/min	49	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	3.2	%	ISO 527
Tensile Strain, break, 50 mm/min	8.6	%	ISO 527
Tensile Modulus, 1 mm/min	2600	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	80	MPa	ISO 178
Flexural Modulus, 2 mm/min	2200	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	3	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -30°C	3	cm-kgf/cm	ASTM D 256
Instrumented Impact Total Energy, 23°C	254	cm-kgf	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	4	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	3	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	4	kJ/m ²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	167	°C	ASTM D 1525



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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	120	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	49	°C	ASTM D 648
CTE, -40°C to 40°C, flow	7.6E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	7.8E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	7.6E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	7.8E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	173	°C	ISO 306
Vicat Softening Temp, Rate B/120	169	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	49	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.31	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm (5)	1.5 - 2	%	SABIC Method
Mold Shrinkage, xflow, 3.2 mm (5)	1.5 - 2	%	SABIC Method
Melt Flow Rate, 250°C/2.16 kgf	50	g/10 min	ASTM D 1238
Melt Viscosity	1650	poise	SABIC Method
Density	1.31	g/cm ³	ISO 1183
Water Absorption, (23°C/sat)	0.34	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.08	%	ISO 62
Melt Volume Rate, MVR at 250°C/2.16 kg	45	cm ³ /10 min	ISO 1133



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Compounding Extrusion		
Drying Temperature	110 - 120	°C
Drying Time	4 - 6	hrs
Drying Time (Cumulative)	8	hrs
Maximum Moisture Content	0	%
Melt Temperature	245 - 260	°C
Barrel - Zone 1 Temperature	200 - 230	°C
Barrel - Zone 2 Temperature	240 - 255	°C
Barrel - Zone 3 Temperature	240 - 275	°C
Barrel - Zone 4 Temperature	240 - 275	°C
Adapter Temperature	240 - 275	°C
Die Temperature	240 - 275	°C
Waterbath Temperature	25 - 35	°C