+135-3858-6433 (GuangDong)
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VALOX™ Resin K4560

Americas: COMMERCIAL

30% glass reinforced PBT. Impact modified, high flow, hydrolytically stable.

TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	1140	kgf/cm²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	1140	kgf/cm²	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	3	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	3	%	ASTM D 638
Tensile Modulus, 5 mm/min	90100	kgf/cm²	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	1760	kgf/cm²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	73400	kgf/cm²	ASTM D 790
IMPACT			
Izod Impact, unnotched, 23°C	83	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	9	cm-kgf/cm	ASTM D 256
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	220	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	200	°C	ASTM D 648
PHYSICAL			
Specific Gravity	1.5	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm (5)	0.6 - 0.8	%	SABIC Method
Mold Shrinkage, xflow, 3.2 mm (5)	1 - 1.2	%	SABIC Method
AFTER 40 CYCLES, SIMILAR TO USCAR-2, CLASS III			
Tensile Stress, brk, Type I, 50 mm/min	970	kgf/cm²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	1040	kgf/cm²	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.2	%	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	75400	kgf/cm²	ASTM D 790
Flexural Strain, 1.3 mm/min, 50 mm span	4.5	%	ASTM D 790
Instrumented Impact, Total Energy, 23°C	80	cm-kgf	ASTM D 3763
PROPERTIES AFTER 1008 HOURS AT 125?C			
Tensile Stress, brk, Type I, 5 mm/min	1170	kgf/cm²	ASTM D 638

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TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
PROPERTIES AFTER 1008 HOURS AT 125?C			
Tensile Strain, brk, Type I, 5 mm/min	4	%	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	72300	kgf/cm²	ASTM D 790
Flexural Strain, 1.3 mm/min, 50 mm span	4.2	%	ASTM D 790
Instrumented Impact, Total Energy, 23°C	70	cm-kgf	ASTM D 3763
AFTER 40 CYCLES, SIMILAR TO USCAR-2, CLASS IV			
Tensile Stress, brk, Type I, 5 mm/min	1090	kgf/cm²	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.5	%	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	81500	kgf/cm²	ASTM D 790
Flexural Strain, 1.3 mm/min, 50 mm span	4	%	ASTM D 790
Instrumented Impact, Total Energy, 23°C	60	cm-kgf	ASTM D 3763
PROPERTIES AFTER 1008 HOURS AT 155?C			
Tensile Stress, brk, Type I, 5 mm/min	1120	kgf/cm²	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	4	%	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	76400	kgf/cm²	ASTM D 790
Flexural Strain, 1.3 mm/min, 50 mm span	4.2	%	ASTM D 790

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• We cannot overemphasize -- OVERDRYING SHOULD BE AVOIDED. Use a dehumidifying desiccant bed dryer with -30°C (-20°F) dew point air (approximately 1 cfm/lb/hr air flow). Exceeding the temperature or time recommended can compromise the hydrolysis performance of the material or the drying equipment can be damaged.

PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	60 - 75	°C
Drying Time	4 - 6	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

• If material is stored in dryer for extended periods (overnight or more):
Lower dryer temperature to room temperature.
Recirculate cool dry air over material.
Dry AGAIN when restarting.