

Valox* Resin K3500

Americas: LIMITED USE

Unfilled PBT. Impact modified, high flow, hydrolytically stable.

Property

TYPICAL PROPERTIES ⁽¹⁾			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yld, Type I, 50 mm/min	46	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	31	MPa	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	4	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	47	%	ASTM D 638
Tensile Modulus, 50 mm/min	1750	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	79	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2180	MPa	ASTM D 790
IMPACT	Value	Unit	Standard
Izod Impact, notched, 23°C	106	J/m	ASTM D 256
THERMAL	Value	Unit	Standard
HDT, 0.45 MPa, 3.2 mm, unannealed	121	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	48	°C	ASTM D 648
PHYSICAL	Value	Unit	Standard
Specific Gravity	1.26	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	2.1 - 2.4	%	SABIC Method
AFTER 40 CYCLES, SIMILAR TO USCAR-2, CLASS III	Value	Unit	Standard
Tensile Stress, brk, Type I, 50 mm/min	46	MPa	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	17	%	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	2040	MPa	ASTM D 790
Flexural Strain, 1.3 mm/min, 50 mm span	13.1	%	ASTM D 790
Instrumented Impact, Total Energy, 23°C	48	J	ASTM D 3763
PROPERTIES AFTER 1008 HOURS AT 125°C	Value	Unit	Standard
Tensile Stress, yld, Type I, 50 mm/min	53	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	31	MPa	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	5.8	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	14.7	%	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	2280	MPa	ASTM D 790
Flexural Strain, 1.3 mm/min, 50 mm span	8.8	%	ASTM D 790
Instrumented Impact, Total Energy, 23°C	17	J	ASTM D 3763
AFTER 40 CYCLES, SIMILAR TO USCAR-2, CLASS IV	Value	Unit	Standard
Tensile Stress, brk, Type I, 50 mm/min	48	MPa	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	17	%	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	2280	MPa	ASTM D 790
Flexural Strain, 1.3 mm/min, 50 mm span	8.8	%	ASTM D 790
Instrumented Impact, Total Energy, 23°C	42	J	ASTM D 3763
PROPERTIES AFTER 1008 HOURS AT 155°C	Value	Unit	Standard
Tensile Stress, yld, Type I, 50 mm/min	42	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	46	MPa	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	2.5	%	ASTM D 638

Tensile Strain, brk, Type I, 50 mm/min	37	%	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	2716	MPa	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	0	MPa	ASTM D 790

Source GMD, last updated:10/21/1998

Processing

Parameter	Value	Unit
Injection Molding		
Drying Temperature	75 - 95	°C
Drying Time	3 - 4	hrs
Drying Time (Cumulative)	6	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	245 - 260	°C
Nozzle Temperature	240 - 255	°C
Front - Zone 3 Temperature	245 - 260	°C
Middle - Zone 2 Temperature	240 - 255	°C
Rear - Zone 1 Temperature	230 - 250	°C
Mold Temperature	50 - 75	°C
Back Pressure	0.3 - 0.7	MPa
Screw Speed	50 - 100	rpm
Shot to Cylinder Size	40 - 80	%
Vent Depth	0.013 - 0.025	mm

Source GMD, last updated:10/21/1998

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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