



VALOX™ RESIN 215HPR

REGION AMERICAS

DESCRIPTION

Unreinforced PBT with mold release. FDA food contact compliant in limited colors. Effective March 2008 this grade will no longer be supported with biocompatibility data. Alternative grade VALOX HX215HP.

TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	51	MPa	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	10	%	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	82	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2340	MPa	ASTM D790
IMPACT			
Izod Impact, unnotched, 23°C	1602	J/m	ASTM D4812
Izod Impact, notched, 23°C	53	J/m	ASTM D256
Modified Gardner, 23°C	40	J	ASTM D3029
THERMAL			
HDT, 0.45 MPa, 6.4 mm, unannealed	154	°C	ASTM D648
HDT, 1.82 MPa, 6.4 mm, unannealed	54	°C	ASTM D648
CTE, -40°C to 40°C, flow	8.1E-05	1/°C	ASTM E831
CTE, 60°C to 138°C, flow	1.39E-04	1/°C	ASTM E831
PHYSICAL			
Specific Gravity	1.31	-	ASTM D792
Specific Volume	0.76	cm³/g	ASTM D792
Water Absorption, (23°C/24hrs)	0.08	%	ASTM D570
Mold Shrinkage, flow, 0.75-2.3 mm	0.9 – 1.6	%	SABIC method
Mold Shrinkage, flow, 2.3-4.6 mm	1.5 – 2.3	%	SABIC method
Mold Shrinkage, xflow, 0.75-2.3 mm	1 – 1.7	%	SABIC method
Mold Shrinkage, xflow, 2.3-4.6 mm	1.6 – 2.4	%	SABIC method
Melt Viscosity	100	Pa-s	SABIC method
INJECTION MOLDING			
Drying Temperature	120	°C	
Drying Time	3 – 4	Hrs	
Drying Time (Cumulative)	12	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	



PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Screw Speed	50 – 100	rpm	
Shot to Cylinder Size	40 – 80	%	
Vent Depth	0.013 – 0.025	mm	