

EXTEM™ RESIN XH1015

REGION EUROPE

DESCRIPTION

Thermoplastic Polyimide Extem* XH1015 Resin. Also UL rating 94V0 at 1.5 and 3.0.

TYPICAL PROPERTY VALUES

Revision 20170816

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	103	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	96	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	7	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	10	%	ASTM D 638
Tensile Modulus, 5 mm/min	3420	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	168	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	3130	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	101	MPa	ISO 527
Tensile Stress, break, 5 mm/min	74	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	6	%	ISO 527
Tensile Strain, break, 5 mm/min	7	%	ISO 527
Tensile Modulus, 1 mm/min	3100	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	120	MPa	ISO 178
Flexural Modulus, 2 mm/min	2870	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	43	J/m	ASTM D 256
Izod Impact, notched, -30°C	0	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	0	J	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	0	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	0	kJ/m ²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	260	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	250	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	235	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	237	°C	ASTM D 648
CTE, 23°C to 150°C, flow	5.E-05	1/°C	ISO 11359-2

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, 23°C to 150°C, xflow	5.1E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	250	°C	ISO 306
Vicat Softening Temp, Rate B/120	247	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	223	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.31	-	ASTM D 792
Water Absorption, 23°C/48hrs	0.6	%	ASTM D 570
Mold Shrinkage, flow, 3.2 mm (5)	1 – 1.2	%	SABIC method
Melt Flow Rate, 200°C/3.8 kgf	0	g/10 min	ASTM D 1238
Melt Flow Rate, 367°C/6.6 kgf	10	g/10 min	ASTM D 1238
Density	1.31	g/cm ³	ISO 1183
Water Absorption, (23°C/sat)	2.3	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0	%	ISO 62
Melt Volume Rate, MVR at 220°C/5.0 kg	0	cm ³ /10 min	ISO 1133
INJECTION MOLDING			
Drying Temperature	175	°C	
Drying Time	4 – 6	hrs	
Drying Time (Cumulative)	24	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	380 – 410	°C	
Nozzle Temperature	375 – 405	°C	
Front - Zone 3 Temperature	380 – 410	°C	
Middle - Zone 2 Temperature	370 – 400	°C	
Rear - Zone 1 Temperature	360 – 385	°C	
Mold Temperature	150 – 175	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	70 – 100	rpm	
Shot to Cylinder Size	40 – 70	%	
Vent Depth	0.025 – 0.076	mm	

DISCLAIMER

The information contained herein may include typical properties of our products or their typical performances when used in certain typical applications. Actual properties of our products, in particular when used in conjunction with any third party material(s) or for any non-typical applications, may differ from typical properties.

It is the customer's responsibility to inspect and test our product(s) in order to satisfy itself as to the suitability of the product(s) for its and its customers particular purposes. The customer is responsible for the appropriate, safe and legal use, processing and handling of all product(s) purchased from us.

Nothing herein is intended to be nor shall it constitute a warranty whatsoever, in particular, warranty of merchantability or fitness for a particular purpose.

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