

Xylex * Resin FXY320DF

Americas: DEVELOPMENTAL

PC+POLYESTER alloy. General Purpose in Diffusion Visual fx. Color package may influence performance.

Property

TYPICAL PROPERTIES ⁽¹⁾			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yld, Type I, 50 mm/min	55	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	56	MPa	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	5	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	135	%	ASTM D 638
Tensile Modulus, 50 mm/min	1880	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	84	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	1960	MPa	ASTM D 790
Tensile Stress, yield, 50 mm/min	55	MPa	ISO 527
Tensile Stress, break, 50 mm/min	56	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	6	%	ISO 527
Tensile Strain, break, 50 mm/min	>150	%	ISO 527
Tensile Modulus, 1 mm/min	2000	MPa	ISO 527
Flexural Stress, break, 2 mm/min	75	MPa	ISO 178
Flexural Modulus, 2 mm/min	2000	MPa	ISO 178
IMPACT	Value	Unit	Standard
Izod Impact, notched, 23°C	961	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	94	J	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	8	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -10°C	5	kJ/m ²	ISO 180/1A
THERMAL	Value	Unit	Standard
Vicat Softening Temp, Rate B/50	115	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	96	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	90	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.04E-04	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	1.04E-04	1/°C	ASTM E 831
Thermal Conductivity	0.23	W/m-°C	ISO 8302
CTE, 23°C to 60°C, flow	8.E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	8.E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/120	115	°C	ISO 306
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	99	°C	ISO 75/Ae
Relative Temp Index, Elec	50	°C	UL 746B
Relative Temp Index, Mech w/impact	50	°C	UL 746B
Relative Temp Index, Mech w/o impact	50	°C	UL 746B
PHYSICAL	Value	Unit	Standard
Specific Gravity	1.2	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.5 - 0.7	%	SABIC Method
Mold Shrinkage, xflow, 3.2 mm	0.5 - 0.7	%	SABIC Method
Melt Flow Rate, 265°C/2.16kg	12	g/10 min	ASTM D 1238
Melt Flow Rate, 300°C/1.2 kgf	15	g/10 min	ASTM D 1238

Density	1.18	g/cm ³	ISO 1183
Melt Volume Rate, MVR at 265°C/2.16 kg	12	cm ³ /10 min	ISO 1133
Melt Volume Rate, MVR at 300°C/1.2 kg	14	cm ³ /10 min	ISO 1133
FLAME CHARACTERISTICS	Value	Unit	Standard
UL Recognized, 94HB Flame Class Rating (3)	1.52	mm	UL 94

Source GMD, last updated:03/16/2005

Processing

Parameter	Value	Unit
Injection Molding		
Drying Temperature	80 - 95	°C
Drying Time	3 - 5	hrs
Drying Time (Cumulative)	8	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	250 - 270	°C
Nozzle Temperature	250 - 270	°C
Front - Zone 3 Temperature	250 - 270	°C
Middle - Zone 2 Temperature	245 - 265	°C
Rear - Zone 1 Temperature	240 - 250	°C
Mold Temperature	45 - 60	°C
Back Pressure	0.2 - 0.5	MPa
Screw Speed	20 - 100	rpm
Shot to Cylinder Size	40 - 80	%
Vent Depth	0.013 - 0.02	mm

Source GMD, last updated:03/16/2005

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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