



Xylex* Resin FXY310DM

Asia Pacific: COMMERCIAL

PC+Polyester alloy in special effects colors. Impact Modified

TYPICAL PROPERTIES ¹	TYPICAL VALUE	UNIT	STANDARD
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	420	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	410	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	4.5	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	125	%	ASTM D 638
Tensile Modulus, 50 mm/min	14700	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	650	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	16500	kgf/cm ²	ASTM D 790
Tensile Stress, yield, 50 mm/min	39	MPa	ISO 527
Tensile Stress, break, 50 mm/min	39	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	3.6	%	ISO 527
Tensile Strain, break, 50 mm/min	127.7	%	ISO 527
Tensile Modulus, 1 mm/min	1690	MPa	ISO 527
Flexural Modulus, 2 mm/min	1430	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	70	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -20°C	53	cm-kgf/cm	ASTM D 256
Instrumented Impact Total Energy, 23°C	530	cm-kgf	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	49	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -10°C	36	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	66	kJ/m ²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	92	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	79	°C	ASTM D 648

1) Typical values only. Variations within normal tolerances are possible for variose colours. All values are measured at least after 48 hours storage at 23°C/50% relative humidity.
All properties, except the melt volume rate are measured on injection moulded samples.
All samples are prepared according to ISO 294.

2) Only typical data for material selection purpose. 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) Own measurement according to UL.





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TYPICAL PROPERTIES ¹	TYPICAL VALUE	UNIT	STANDARD
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	75	°C	ASTM D 648
CTE, -40°C to 40°C, flow	8.3E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	8.73E-05	1/°C	ASTM E 831
Vicat Softening Temp, Rate B/50	93	°C	ISO 306
Vicat Softening Temp, Rate B/120	94	°C	ISO 306
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	76	°C	ISO 75/Ae
PHYSICAL			
Specific Gravity	1.15	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.5 - 0.7	%	SABIC Method
Mold Shrinkage, xflow, 3.2 mm	0.6 - 0.7	%	SABIC Method
Melt Flow Rate, 265°C/2.16kg	8	g/10 min	ASTM D 1238
Density	1.15	g/cm ³	ISO 1183
Water Absorption, (23°C/sat)	0.21	%	ISO 62
Melt Volume Rate, MVR at 265°C/2.16 kg	8	cm ³ /10 min	ISO 1133

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PROCESSING PARAMETERS	TYPICAL VALUE	UNIT
Injection Molding		
Drying Temperature	65 - 75	°C
Drying Time	3 - 5	hrs
Drying Time (Cumulative)	8	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	245 - 265	°C
Nozzle Temperature	245 - 265	°C
Front - Zone 3 Temperature	245 - 265	°C
Middle - Zone 2 Temperature	240 - 260	°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

• Parts may initially appear hazy directly from the mold, but will clear upon reaching ambient temperature.

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Source, GMD, Last Update: 09/15/2004

