SABIC Innovative Plastics™

Xylex* Resin X8409AC

Europe-Africa-Middle East: COMMERCIAL

PC + Polyester, Injection (Blow) Molding, or Extrusion Blow molding grade, Chemical Resistance and Transparency

TYPICAL PROPERTIES [1]	TYPICAL VALUE	UNIT	STANDARD
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	580	kgf/cm²	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	560	kgf/cm²	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	6	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	92	%	ASTM D 638
Tensile Modulus, 50 mm/min	24100	kgf/cm²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	950	kgf/cm²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	22600	kgf/cm²	ASTM D 790
Tensile Stress, yield, 50 mm/min	60	MPa	ISO 527
Tensile Stress, break, 50 mm/min	60	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	5.8	%	ISO 527
Tensile Strain, break, 50 mm/min	117	%	ISO 527
Tensile Modulus, 1 mm/min	2180	MPa	ISO 527
Flexural Stress, break, 2 mm/min	89	MPa	ISO 178
Flexural Modulus, 2 mm/min	2000	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	87	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -30°C	20	cm-kgf/cm	ASTM D 256
Instrumented Impact Total Energy, 23°C	713	cm-kgf	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	10	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -10°C	8	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	8	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	8	kJ/m²	ISO 179/1eA

1) Typical values only. Variations within normal tolerances are possible for variose colours.All values are measured at least after 48 hours storage at 230C/50% relative humidity.
All properties, expect 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.

Source, GMD, Last Update:04/03/2006

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TYPICAL PROPERTIES [1]	TYPICAL VALUE	UNIT	STANDARD
THERMAL			
Vicat Softening Temp, Rate B/50	123	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	116	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	104	°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	6.E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	7.E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	121	°C	ISO 306
Vicat Softening Temp, Rate B/120	123	°C	ISO 306
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	102	°C	ISO 75/Ae
PHYSICAL			
Specific Gravity	1.2	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.5 - 0.8	%	SABIC Method
Mold Shrinkage, xflow, 3.2 mm	0.5 - 0.8	%	SABIC Method
Melt Flow Rate, 265°C/2.16kg	4	g/10 min	ASTM D 1238
Density	1.2	g/cm³	ISO 1183
Water Absorption, (23°C/sat)	0.37	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.13	%	ISO 62
Melt Volume Rate, MVR at 265°C/2.16 kg	3	cm³/10 min	ISO 1133
OPTICAL			
Light Transmission	88	%	ASTM D 1003
Haze	1.5	%	ASTM D 1003
Refractive Index	1.576	-	ASTM D 542

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PROCESSING PARAMETERS	TYPICAL VALUE	UNIT
Extrusion Blow Molding		
Drying Temperature	75 - 90	°C
Drying Time	4 - 6	hrs
Drying Time (Cumulative)	24	hrs
Maximum Moisture Content	0.01 - 0.02	%
Melt Temperature (Parison)	250 - 270	°C
Barrel - Zone 1 Temperature	235 - 260	°C
Barrel - Zone 2 Temperature	235 - 260	°C
Barrel - Zone 3 Temperature	235 - 260	°C
Barrel - Zone 4 Temperature	235 - 260	°C
Adapter - Zone 5 Temperature	235 - 260	°C
Head - Zone 6 - Top Temperature	240 - 270	°C
Head - Zone 7 - Middle Temperature	240 - 270	°C
Head - Zone 7 - Bottom Temperature	240 - 270	°C
Mold Temperature	30 - 75	°C

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