



# GELOY™ Resin FXW710SK

## Americas: COMMERCIAL

General purpose injection molding ASA with Visual Fx sparkle effect.

TYPICAL PROPERTIES¹	TYPICAL VALUE	Unit	Standard
<b>MECHANICAL</b>			
Tensile Stress, yld, Type I, 50 mm/min	380	kgf/cm²	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	300	kgf/cm²	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	2.5	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	4	%	ASTM D 638
Tensile Modulus, 5 mm/min	18200	kgf/cm²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	560	kgf/cm²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	18200	kgf/cm²	ASTM D 790
Tensile Stress, yield, 50 mm/min	38	MPa	ISO 527
Tensile Stress, break, 50 mm/min	30	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	2.5	%	ISO 527
Tensile Strain, break, 50 mm/min	4	%	ISO 527
Tensile Modulus, 1 mm/min	1900	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	50	MPa	ISO 178
Flexural Modulus, 2 mm/min	1900	MPa	ISO 178
Hardness, Rockwell R	95	-	ISO 2039-2
<b>IMPACT</b>			
Izod Impact, notched, 23°C	13	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -30°C	5	cm-kgf/cm	ASTM D 256
Instrumented Impact Total Energy, 23°C	173	cm-kgf	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	12	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	5	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	12	kJ/m²	ISO 179/1eA

(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.  
(5) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.  
(6) Needs hard coat to consistently pass 60 sec Vertical Burn.

Source GMD, last updated:  
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TYPICAL PROPERTIES <sup>1</sup>	TYPICAL VALUE	Unit	Standard
<b>IMPACT</b>			
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	4	kJ/m <sup>2</sup>	ISO 179/1eA
<b>THERMAL</b>			
Vicat Softening Temp, Rate B/50	99	°C	ASTM D 1525
HDT, 1.82 MPa, 3.2mm, unannealed	77	°C	ASTM D 648
CTE, -40°C to 40°C, flow	8.64E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	9.18E-05	1/°C	ASTM E 831
CTE, 23°C to 60°C, flow	9.E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	1.E-04	1/°C	ISO 11359-2
Ball Pressure Test, 75°C +/- 2°C	PASSES	-	IEC 60695-10-2
Vicat Softening Temp, Rate B/50	86	°C	ISO 306
Vicat Softening Temp, Rate B/120	91	°C	ISO 306
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	88	°C	ISO 75/Be
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	75	°C	ISO 75/Ae
<b>PHYSICAL</b>			
Specific Gravity	1.06	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm (5)	0.5 - 0.7	%	SABIC Method
Mold Shrinkage, xflow, 3.2 mm (5)	0.5 - 0.7	%	SABIC Method
Melt Flow Rate, 220°C/10.0 kgf	7	g/10 min	ASTM D 1238
Density	1.09	g/cm <sup>3</sup>	ISO 1183
Water Absorption, (23°C/sat)	0.55	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.2	%	ISO 62
Melt Volume Rate, MVR at 220°C/10.0 kg	7	cm <sup>3</sup> /10 min	ISO 1133
Melt Volume Rate, MVR at 260°C/5.0 kg	8	cm <sup>3</sup> /10 min	ISO 1133

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
<b>Injection Molding</b>		
Drying Temperature	75 - 85	°C
Drying Time	2 - 4	hrs
Maximum Moisture Content	0.04	%
Melt Temperature	240 - 260	°C
Nozzle Temperature	220 - 250	°C
Front - Zone 3 Temperature	230 - 260	°C
Middle - Zone 2 Temperature	220 - 250	°C
Rear - Zone 1 Temperature	210 - 240	°C
Hopper Temperature	60 - 80	°C
Mold Temperature	40 - 70	°C

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