



GELOY™ Resin XP4020R

Asia Pacific: COMMERCIAL

ASA+PC may contain up to 20% post-industrial recycle. Excellent flow, weatherability, toughness and high heat for exterior uses.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	610	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	440	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	3.7	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	36	%	ASTM D 638
Tensile Modulus, 50 mm/min	30900	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	870	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	26000	kgf/cm ²	ASTM D 790
Hardness, Rockwell R	111	-	ASTM D 785
IMPACT			
Izod Impact, notched, 23°C	31	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -30°C	7	cm-kgf/cm	ASTM D 256
Instrumented Impact Total Energy, 23°C	345	cm-kgf	ASTM D 3763
Instrumented Impact Total Energy, -30°C	230	cm-kgf	ASTM D 3763
THERMAL			
Vicat Softening Temp, Rate B/50	121	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	106	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	90	°C	ASTM D 648
CTE, -40°C to 40°C, flow	9.E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	8.1E-05	1/°C	ASTM E 831
PHYSICAL			
Specific Gravity	1.13	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm (5)	0.4 - 0.6	%	SABIC Method
Melt Flow Rate, 220°C/10.0 kgf	10	g/10 min	ASTM D 1238
Melt Flow Rate, 230°C/3.8 kgf	21.6	g/10 min	ASTM D 1238



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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
OPTICAL			
Gloss, untextured, 60 degrees	98	-	ASTM D 523
FLAME CHARACTERISTICS			
FMVSS Burning Speed, thickness 1 mm	39	mm/min	FMVSS 302



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	90 - 100	°C
Drying Time	3 - 4	hrs
Drying Time (Cumulative)	8	hrs
Maximum Moisture Content	0.04	%
Melt Temperature	255 - 270	°C
Nozzle Temperature	240 - 255	°C
Front - Zone 3 Temperature	245 - 260	°C
Middle - Zone 2 Temperature	240 - 255	°C
Rear - Zone 1 Temperature	230 - 250	°C
Mold Temperature	55 - 70	°C
Back Pressure	0.3 - 1	MPa
Screw Speed	30 - 80	rpm
Shot to Cylinder Size	40 - 80	%
Vent Depth	0.038 - 0.076	mm