



SUMIWANG™ T4034 PC+ASA

Categories: [Polymer](#); [Thermoplastic](#); [ASA Polymer](#)

Material Notes: PC/ASA.

Information provided by SUMIWANG

Physical Properties	Metric	English	Comments
Specific Gravity	1.15 g/cc	1.15 g/cc	ASTM D792
Water Absorption	0.25 %	0.25 %	24 hours; ASTM D570
Linear Mold Shrinkage, Flow	0.0050 - 0.0070 cm/cm @Thickness 3.20 mm	0.0050 - 0.0070 in/in @Thickness 0.126 in	SABIC method
Linear Mold Shrinkage, Transverse	0.0050 - 0.0070 cm/cm @Thickness 3.20 mm	0.0050 - 0.0070 in/in @Thickness 0.126 in	SABIC method
Melt Flow	24 g/10 min @Load 3.80 kg, Temperature 280 °C	24 g/10 min @Load 8.38 lb, Temperature 536 °F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	110	110	ASTM D785
Tensile Strength, Yield	62.0 MPa	8990 psi	50 mm/min; ASTM D638
Elongation at Break	25 %	25 %	50 mm/min; ASTM D638
Flexural Yield Strength	88.0 MPa	12800 psi	1.3 mm/min, 50 mm span; ASTM D790
Flexural Modulus	2.51 GPa	364 ksi	1.3 mm/min, 50 mm span; ASTM D790
Izod Impact, Notched	3.20 J/cm	5.99 ft-lb/in	ASTM D256
	0.800 J/cm @Temperature -30.0 °C	1.50 ft-lb/in @Temperature -22.0 °F	ASTM D256
Dart Drop, Total Energy	47.0 J	34.7 ft-lb	ASTM D3763
	30.0 J @Temperature -30.0 °C	22.1 ft-lb @Temperature -22.0 °F	ASTM D3763

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	72.0 $\mu\text{m/m}\cdot\text{C}$ @Temperature -20.0 - 150 $^{\circ}\text{C}$	40.0 $\mu\text{in/in}\cdot\text{F}$ @Temperature -4.00 - 302 $^{\circ}\text{F}$	ASTM E831
CTE, linear, Transverse to Flow	72.0 $\mu\text{m/m}\cdot\text{C}$ @Temperature -20.0 - 150 $^{\circ}\text{C}$	40.0 $\mu\text{in/in}\cdot\text{F}$ @Temperature -4.00 - 302 $^{\circ}\text{F}$	ASTM E831
Thermal Conductivity	0.250 W/m-K	1.74 BTU-in/hr-ft $^2\cdot\text{F}$	ASTM C177
Deflection Temperature at 0.46 MPa (66 psi)	115 $^{\circ}\text{C}$ @Thickness 3.20 mm	239 $^{\circ}\text{F}$ @Thickness 0.126 in	unannealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	104 $^{\circ}\text{C}$ @Thickness 6.40 mm	219 $^{\circ}\text{F}$ @Thickness 0.252 in	unannealed; ASTM D648

Optical Properties	Metric	English	Comments
Gloss	94 %	94 %	60 $^{\circ}$; ASTM D523

Processing Properties	Metric	English	Comments
Nozzle Temperature	245 - 265 $^{\circ}\text{C}$	473 - 509 $^{\circ}\text{F}$	Injection Molding
Zone 1	225 - 240 $^{\circ}\text{C}$	437 - 464 $^{\circ}\text{F}$	Sheet Extrusion
	240 - 255 $^{\circ}\text{C}$	464 - 491 $^{\circ}\text{F}$	
Zone 2	240 - 250 $^{\circ}\text{C}$	464 - 482 $^{\circ}\text{F}$	Sheet Extrusion
	245 - 260 $^{\circ}\text{C}$	473 - 500 $^{\circ}\text{F}$	
Zone 3	250 - 260 $^{\circ}\text{C}$	482 - 500 $^{\circ}\text{F}$	Sheet Extrusion
	250 - 265 $^{\circ}\text{C}$	482 - 509 $^{\circ}\text{F}$	
Zone 4	260 - 270 $^{\circ}\text{C}$	500 - 518 $^{\circ}\text{F}$	Sheet Extrusion
Adapter Temperature	260 - 270 $^{\circ}\text{C}$	500 - 518 $^{\circ}\text{F}$	Sheet Extrusion
Die Temperature	260 - 270 $^{\circ}\text{C}$	500 - 518 $^{\circ}\text{F}$	Sheet Extrusion
Melt Temperature	260 - 275 $^{\circ}\text{C}$	500 - 527 $^{\circ}\text{F}$	
	260 - 280 $^{\circ}\text{C}$	500 - 536 $^{\circ}\text{F}$	
Mold Temperature	55.0 - 70.0 $^{\circ}\text{C}$	131 - 158 $^{\circ}\text{F}$	
Roll Temperature	75.0 - 90.0 $^{\circ}\text{C}$	167 - 194 $^{\circ}\text{F}$	Roll Stack Temp - Bottom
	95.0 - 110 $^{\circ}\text{C}$	203 - 230 $^{\circ}\text{F}$	Roll Stack Temp - Middle
	100 - 120 $^{\circ}\text{C}$	212 - 248 $^{\circ}\text{F}$	Roll Stack Temp - Top

Drying Temperature	90.0 - 100 °C	194 - 212 °F	Sheet Extrusion
	95.0 - 105 °C	203 - 221 °F	Injection Molding
Dry Time	3.00 - 4.00 hour	3.00 - 4.00 hour	Injection Molding
	3.00 - 4.00 hour	3.00 - 4.00 hour	Sheet Extrusion
	8.00 hour	8.00 hour	Cumulative; Sheet Extrusion
	8.00 hour	8.00 hour	Cumulative; Injection Molding
Moisture Content	0.040 %	0.040 %	
	>= 0.040 %	>= 0.040 %	
Back Pressure	0.300 - 1.00 MPa	43.5 - 145 psi	
Shot Size	40 - 80 %	40 - 80 %	
Vent Depth	0.00380 - 0.00760 cm	0.00150 - 0.00299 in	
Screw Speed	30 - 80 rpm	30 - 80 rpm	