

## SABIC Innovative Plastics Cycloy® CM5820 PC+ABS (Asia Pacific)

Category : Polymer , Thermoplastic , ABS Polymer , Polycarbonate/ABS Alloy, Unreinforced , Polycarbonate (PC)

### Material Notes:

Cycloy CM5820 resin is a Mineral Filled Non-FR PC+ABS blend with high impact, high modulus, good chemical resistance & improved surface aesthetic, designed for hand help device chassis that required better surface finishing. It also suitable for inserts molded chassis application which required high gloss painting or NCVM type of secondary operation.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-Cycloy-CM5820-PCABS-Asia-Pacific.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Cycloy-CM5820-PCABS-Asia-Pacific.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.25 g/cc	1.25 g/cc	ASTM D792
Moisture Absorption	0.0200 %	0.0200 %	23°C / 50% RH; ISO 62
Water Absorption at Saturation	0.20 %	0.20 %	ISO 62
Linear Mold Shrinkage, Flow	0.0040 - 0.0060 cm/cm @Thickness 3.20 mm	0.0040 - 0.0060 in/in @Thickness 0.126 in	SABIC Method
Melt Flow	13.5 g/10 min @Load 5.00 kg, Temperature 260 °C	13.5 g/10 min @Load 11.0 lb, Temperature 500 °F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	40.0 MPa	5800 psi	5 mm/min; ISO 527
	45.0 MPa	6530 psi	Type I, 50 mm/min; ASTM D638
Tensile Strength, Yield	55.0 MPa	7980 psi	Type I, 50 mm/min; ASTM D638
	55.0 MPa	7980 psi	5 mm/min; ISO 527
Elongation at Break	20 %	20 %	5 mm/min; ISO 527
	50 %	50 %	Type I, 50 mm/min; ASTM D638
Elongation at Yield	4.0 %	4.0 %	Type I, 50 mm/min; ASTM D638
	4.0 %	4.0 %	5 mm/min; ISO 527
Tensile Modulus	3.30 GPa	479 ksi	5 mm/min; ASTM D638
Flexural Yield Strength	90.0 MPa	13100 psi	2 mm/min; ISO 178
Flexural Modulus	3.30 GPa	479 ksi	1.3 mm/min, 50 mm span; ASTM D790
	3.35 GPa	486 ksi	2 mm/min; ISO 178

Mechanical Properties	Metric	English	Comments
Izod Impact, Notched	5.50 J/cm	10.0 ft-lb/in	ASTM D256
	1.00 J/cm	1.87 ft-lb/in	ASTM D256
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Izod Impact, Notched (ISO)	48.0 kJ/m <sup>2</sup>	22.8 ft-lb/in <sup>2</sup>	80*10*3; ISO 180/1A
Charpy Impact, Notched	4.80 J/cm <sup>2</sup>	22.8 ft-lb/in <sup>2</sup>	Edgew 80*10*4 sp=62mm; ISO 179/1eA
	1.00 J/cm <sup>2</sup>	4.76 ft-lb/in <sup>2</sup>	Edgew 80*10*4 sp=62mm; ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Dart Drop, Total Energy	55.0 J	40.6 ft-lb	ASTM D3763
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	48.0 µm/m-°C	26.7 µin/in-°F	ASTM E 831
	@Temperature -40.0 - 40.0 °C	@Temperature -40.0 - 104 °F	
CTE, linear, Transverse to Flow	56.0 µm/m-°C	31.1 µin/in-°F	ASTM E 831
	@Temperature -40.0 - 40.0 °C	@Temperature -40.0 - 104 °F	
Deflection Temperature at 1.8 MPa (264 psi)	116 °C	241 °F	unannealed; ASTM D648
	@Thickness 3.20 mm	@Thickness 0.126 in	
Vicat Softening Point	135 °C	275 °F	Rate B/120; ISO 306
Flammability, UL94	HB	HB	UL 94
	@Thickness 0.750 mm	@Thickness 0.0295 in	

## Contact Songhan Plastic Technology Co.,Ltd.

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