Cycoloy* Resin MC1300

Americas: COMMERCIAL

Cycoloy MC1300 resin is an injection moldable PC/ABS blend with excellent flow and impact performance. It is designed for plating applications mostly used in the automotive industry.

TYPICAL PROPERTIES [1]	TYPICAL VALUE	UNIT	STANDARD
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	510	kgf/cm²	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	440	kgf/cm²	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	8.6	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	150	%	ASTM D 638
Tensile Modulus, 50 mm/min	21700	kgf/cm²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	730	kgf/cm²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	21000	kgf/cm²	ASTM D 790
IMPACT			
Izod Impact, notched, 23°C	54	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -30°C	43	cm-kgf/cm	ASTM D 256
Instrumented Impact Total Energy, 23°C	414	cm-kgf	ASTM D 3763
Instrumented Impact Total Energy, -30°C	345	cm-kgf	ASTM D 3763
THERMAL			
Vicat Softening Temp, Rate B/50	111	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	115	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	98	°C	ASTM D 648
CTE, -40°C to 40°C, flow	7.2E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	9.E-05	1/°C	ASTM E 831
Thermal Conductivity	0.2	W/m-°C	ASTM C 177
PHYSICAL			
Specific Gravity	1.1	-	ASTM D 792
Water Absorption, 24 hours	0.1	%	ASTM D 570
Mold Shrinkage, flow, 3.2 mm	0.5 - 0.8	%	GE Method
Mold Shrinkage, xflow, 3.2 mm	0.5 - 0.7	%	GE Method
Melt Flow Rate, 260°C/5.0 kgf	14	g/10 min	ASTM D 1238

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:10/31/2000

SABIC Innovative Plastics™

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PROCESSING PARAMETERS	TYPICAL VALUE	UNIT
Injection Molding		
Drying Temperature	100 - 105	°C
Drying Time	3 - 4	hrs
Drying Time (Cumulative)	8	hrs
Maximum Moisture Content	0.04	%
Melt Temperature	260 - 290	°C
Nozzle Temperature	260 - 290	°C
Front - Zone 3 Temperature	255 - 290	°C
Middle - Zone 2 Temperature	255 - 290	°C
Rear - Zone 1 Temperature	250 - 280	°C
Mold Temperature	75 - 100	°C
Back Pressure	0.3 - 0.7	MPa
Screw Speed	40 - 70	rpm
Shot to Cylinder Size	30 - 80	%
Vent Depth	0.038 - 0.076	mm

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