



Cycoloy* Resin CU6800
Asia Pacific: COMMERCIAL

Non-chlorinated and non-brominated flame retardant PC/ABS featuring excellent flow properties. UL-94 V1 listed at 2.0mm intended for a wide range of different applications.

| TYPICAL PROPERTIES ¹ | TYPICAL VALUE | UNIT | STANDARD |
|--|---------------|----------|-------------|
| MECHANICAL | | | |
| Tensile Stress, yld, Type I, 50 mm/min | 59 | MPa | ASTM D 638 |
| Tensile Stress, brk, Type I, 50 mm/min | 46 | MPa | ASTM D 638 |
| Tensile Strain, yld, Type I, 50 mm/min | 3.3 | % | ASTM D 638 |
| Tensile Strain, brk, Type I, 50 mm/min | 66 | % | ASTM D 638 |
| Tensile Modulus, 50 mm/min | 2990 | MPa | ASTM D 638 |
| Flexural Stress, yld, 1.3 mm/min, 50 mm span | 88 | MPa | ASTM D 790 |
| Flexural Modulus, 1.3 mm/min, 50 mm span | 2520 | MPa | ASTM D 790 |
| IMPACT | | | |
| Izod Impact, notched, 23°C | 517 | J/m | ASTM D 256 |
| Instrumented Impact Total Energy, 23°C | 47 | J | ASTM D 3763 |
| THERMAL | | | |
| Vicat Softening Temp, Rate B/50 | 98 | °C | ASTM D 1525 |
| HDT, 0.45 MPa, 3.2 mm, unannealed | 88 | °C | ASTM D 648 |
| HDT, 1.82 MPa, 3.2mm, unannealed | 74 | °C | ASTM D 648 |
| HDT, 1.82 MPa, 6.4 mm, unannealed | 79 | °C | ASTM D 648 |
| CTE, -40°C to 40°C, flow | 7.56E-05 | 1/°C | ASTM E 831 |
| CTE, -40°C to 40°C, xflow | 7.56E-05 | 1/°C | ASTM E 831 |
| Relative Temp Index, Elec | 60 | °C | UL 746B |
| Relative Temp Index, Mech w/impact | 60 | °C | UL 746B |
| Relative Temp Index, Mech w/o impact | 60 | °C | UL 746B |
| PHYSICAL | | | |
| Specific Gravity | 1.2 | - | ASTM D 792 |
| Mold Shrinkage, flow, 3.2 mm | 0.5 - 0.7 | % | GE Method |
| Melt Flow Rate, 260°C/2.16 kgf | 23 | g/10 min | ASTM D 1238 |
| Melt Flow Rate, 260°C/5.0 kgf | 81 | g/10 min | ASTM D 1238 |
| FLAME CHARACTERISTICS | | | |
| UL Recognized, 94V-1 Flame Class Rating (3) | 2 | mm | UL 94 |
| UL Recognized, 94-5VB Rating (3) | 2 | mm | UL 94 |

1) Typical values only. Variations within normal tolerances are possible for various colours. All values are measured at least after 48 hours storage at 23°C/50% relative humidity. All properties, except 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:11/19/2004

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| PROCESSING PARAMETERS | TYPICAL VALUE | UNIT |
|-----------------------------|---------------|------|
| Injection Molding | | |
| Drying Temperature | 75 - 80 | °C |
| Drying Time | 2 - 4 | hrs |
| Drying Time (Cumulative) | 8 | hrs |
| Maximum Moisture Content | 0.04 | % |
| Melt Temperature | 230 - 265 | °C |
| Nozzle Temperature | 230 - 265 | °C |
| Front - Zone 3 Temperature | 230 - 265 | °C |
| Middle - Zone 2 Temperature | 225 - 260 | °C |
| Rear - Zone 1 Temperature | 220 - 250 | °C |
| Mold Temperature | 60 - 80 | °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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