

Cycolac* Resin X17
Americas: COMMERCIAL

Automotive: Very high heat resistance with high strength and modulus. UL94 HB rated.

| TYPICAL PROPERTIES ¹ | TYPICAL VALUE | UNIT | STANDARD |
|--|---------------|---------------------|--------------|
| MECHANICAL | | | |
| Tensile Stress, yld, Type I, 5 mm/min | 500 | kgf/cm ² | ASTM D 638 |
| Tensile Modulus, 5 mm/min | 24600 | 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 | 26700 | kgf/cm ² | ASTM D 790 |
| Hardness, Rockwell R | 113 | - | ASTM D 785 |
| IMPACT | | | |
| Izod Impact, notched, 23°C | 16 | cm-kgf/cm | ASTM D 256 |
| Izod Impact, notched, -40°C | 3 | cm-kgf/cm | ASTM D 256 |
| THERMAL | | | |
| HDT, 0.45 MPa, 3.2 mm, unannealed | 107 | °C | ASTM D 648 |
| HDT, 1.82 MPa, 3.2mm, unannealed | 95 | °C | ASTM D 648 |
| HDT, 1.82 MPa, 6.4 mm, unannealed | 101 | °C | ASTM D 648 |
| CTE, -40°C to 40°C, flow | 6.66E-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 | 1.05 | - | ASTM D 792 |
| Mold Shrinkage, flow, 3.2 mm (5) | 0.5 - 0.8 | % | SABIC Method |
| Melt Flow Rate, 230°C/3.8 kgf | 1.5 | g/10 min | ASTM D 1238 |
| Melt Viscosity, 260°C, 1000 sec-1 | 2250 | poise | ASTM D 3825 |
| ELECTRICAL | | | |
| Arc Resistance, Tungsten {PLC} | 6 | PLC Code | ASTM D 495 |
| Hot Wire Ignition {PLC} | 4 | PLC Code | UL 746A |
| High Voltage Arc Track Rate {PLC} | 1 | PLC Code | UL 746A |

¹ Typical values only. Variations within normal tolerances are possible for various colours. All values are measured at least after 48 hours storage at 230C/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 this or any other material under actual fire conditions.
⁴ Own measurement according to UL.
⁵ Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.

Dongguan Yi-Ming Plastic Chemical Co., Ltd.

如需要更多物性资料请查阅 www.kedisujiao.com

备注：以上原料物性数据由厂家发布，我公司仅提供参考！数据如有变动，请联系原料生产厂家获知。我公司不承担任何法律责任！

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|--|---------------|----------|----------|
| ELECTRICAL | | | |
| High Ampere Arc Ign, surface {PLC} | 0 | PLC Code | UL 746A |
| Comparative Tracking Index (UL) {PLC} | 0 | PLC Code | UL 746A |
| FLAME CHARACTERISTICS | | | |
| UL Recognized, 94HB Flame Class Rating (3) | 1.47 | mm | UL 94 |

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| PROCESSING PARAMETERS | TYPICAL VALUE | UNIT |
|-----------------------------|---------------|------|
| Injection Molding | | |
| Drying Temperature | 95 - 100 | °C |
| Drying Time | 2 - 4 | hrs |
| Drying Time (Cumulative) | 8 | hrs |
| Maximum Moisture Content | 0.01 | % |
| Melt Temperature | 245 - 275 | °C |
| Nozzle Temperature | 245 - 275 | °C |
| Front - Zone 3 Temperature | 245 - 255 | °C |
| Middle - Zone 2 Temperature | 225 - 240 | °C |
| Rear - Zone 1 Temperature | 200 - 210 | °C |
| Mold Temperature | 50 - 80 | °C |
| Back Pressure | 0.3 - 0.7 | MPa |
| Screw Speed | 30 - 60 | rpm |
| Shot to Cylinder Size | 50 - 70 | % |
| Vent Depth | 0.038 - 0.051 | mm |

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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.
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4) Own measurement according to UL.
5) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.

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