# SABIC CYCOLAC™ ABS MG29物性表

| 属性 | 典型值 | UNITS | 测试手段 |
|---|---|---|---|
| MECHANICAL | | | |
| Tensile Stress, yld, Type I, 5 mm/min | 39 | MPa | ASTM D638 |
| Tensile Stress, brk, Type I, 5 mm/min | 31 | MPa | ASTM D638 |
| Tensile Strain, yld, Type I, 5 mm/min | 2.4 | % | ASTM D638 |
| Tensile Strain, brk, Type I, 5 mm/min | 26 | % | ASTM D638 |
| Tensile Modulus, 5 mm/min | 2000 | MPa | ASTM D638 |
| Flexural Stress, yld, 1.3 mm/min, 50 mm span | 65 | MPa | ASTM D790 |
| Flexural Modulus, 1.3 mm/min, 50 mm span | 2070 | MPa | ASTM D790 |
| Tensile Stress, yield, 50 mm/min | 42 | MPa | ISO 527 |
| Tensile Stress, break, 50 mm/min | 32 | MPa | ISO 527 |
| Tensile Strain, yield, 50 mm/min | 2.8 | % | ISO 527 |
| Tensile Strain, break, 50 mm/min | 20 | % | ISO 527 |
| Tensile Modulus, 1 mm/min | 2050 | MPa | ISO 527 |
| Flexural Stress, yield, 2 mm/min | 61 | MPa | ISO 178 |
| Flexural Modulus, 2 mm/min | 1990 | MPa | ISO 178 |
| IMPACT | | | |
| Izod Impact, notched, 23°C | 455 | J/m | ASTM D256 |
| Instrumented Dart Impact Total Energy, 23°C | 29 | J | ASTM D3763 |
| Izod Impact, notched 80*10*4 +23°C | 37 | kJ/m² | ISO 180/1A |
| Izod Impact, notched 80*10*4 -30°C | 12 | kJ/m² | ISO 180/1A |
| THERMAL | | | |
| Vicat Softening Temp, Rate B/50 | 99 | °C | ASTM D1525 |
| HDT, 0.45 MPa, 3.2 mm, unannealed | 94 | °C | ASTM D648 |
| HDT, 1.82 MPa, 3.2mm, unannealed | 79 | °C | ASTM D648 |

| | | | |
|---|---|---|---|
| CTE, -40°C to 40°C, flow | 9.54E-05 | 1/°C | ASTM E831 |
| CTE, -40°C to 40°C, xflow | 9.36E-05 | 1/°C | ASTM E831 |
| Vicat Softening Temp, Rate B/50 | 98 | °C | ISO 306 |
| HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm | 79 | °C | ISO 75/Af |
| 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 | 1.04 | - | ASTM D792 |
| Mold Shrinkage, flow, 3.2 mm | 0.5-0.8 | % | SABIC method |
| Melt Flow Rate, 230°C/3.8 kg | 1.2 | g/10 min | ASTM D1238 |
| Melt Viscosity, 240°C, 1000 sec-1 | 2800 | Poise | ASTM D3825 |
| Melt Flow Rate, 220°C/10.0 kg | 8 | g/10 min | ISO 1133 |
| **ELECTRICAL** | | | |
| Arc Resistance, Tungsten {PLC} | 5 | PLC Code | ASTM D495 |
| Hot Wire Ignition {PLC) | 3 | PLC Code | UL 746A |
| High Voltage Arc Track Rate {PLC} | 0 | PLC Code | UL 746A |
| High Ampere Arc Ign, surface {PLC} | 1 | PLC Code | UL 746A |
| Comparative Tracking Index (UL) {PLC} | 0 | PLC Code | UL 746A |
| **FLAME CHARACTERISTICS** | | | |
| UL Recognized, 94HB Flame Class Rating | 1.5 | mm | UL 94 |
| **Injection Molding** | | | |
| Drying Temperature | 90-95 | °C | |
| Drying Time | 2-4 | Hrs | |
| Drying Time (Cumulative) | 8 | Hrs | |
| Maximum Moisture Content | 0.1 | % | |
| Melt Temperature | 230-275 | °C | |
| Nozzle Temperature | 230-275 | °C | |
| Front - Zone 3 Temperature | 225-240 | °C | |
| Middle - Zone 2 Temperature | 210-220 | °C | |
| Rear - Zone 1 Temperature | 190-200 | °C | |

| | | |
|---|---|---|
| Mold Temperature | 50-65 | °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 |