

**SABIC Innovative Plastics Cyclac® MG47 ABS (Europe-Africa-Middle East)**

Category : Polymer , Thermoplastic , ABS Polymer

**Material Notes:**

Multi-purpose, injection molding ABS providing a favorable balance of engineering properties.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-Cyclac-MG47-ABS-Europe-Africa-Middle-East.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Cyclac-MG47-ABS-Europe-Africa-Middle-East.php)

| Physical Properties         | Metric   | English  | Comments   |
|-----------------------------|--|--|--|
| Specific Gravity            | 1.04 g/cc  | 1.04 g/cc  | ASTM D792  |
| Density                     | 1.04 g/cc  | 0.0376 lb/in <sup>3</sup>                            | ISO 1183   |
| Viscosity                   | 225000 cP  | 225000 cP  | Melt Viscosity, 240°C, 1000 sec-1;<br>ASTM D3825 |
| Linear Mold Shrinkage, Flow | 0.0050 - 0.0080 cm/cm<br>@Thickness 3.20 mm          | 0.0050 - 0.0080 in/in<br>@Thickness 0.126 in         | SABIC Method                                     |
| Melt Flow                   | 5.6 g/10 min<br>@Load 3.80 kg,<br>Temperature 230 °C | 5.6 g/10 min<br>@Load 8.38 lb,<br>Temperature 446 °F | ASTM D1238                                       |
|                             | 18 g/10 min<br>@Load 10.0 kg,<br>Temperature 220 °C  | 18 g/10 min<br>@Load 22.0 lb,<br>Temperature 428 °F  | ISO 1133   |

| Mechanical Properties     | Metric   | English  | Comments                    |
|---------------------------|----------|----------|-----------------------------|
| Hardness, Rockwell R      | 112      | 112      | ASTM D785                   |
| Tensile Strength at Break | 33.0 MPa | 4790 psi | Type I, 5 mm/min; ASTM D638 |
|                           | 35.0 MPa | 5080 psi | 50 mm/min; ISO 527          |
| Tensile Strength, Yield   | 44.0 MPa | 6380 psi | Type I, 5 mm/min; ASTM D638 |
|                           | 47.0 MPa | 6820 psi | 50 mm/min; ISO 527          |
| Elongation at Break       | 24 %     | 24 %     | Type I, 5 mm/min; ASTM D638 |
|                           | 25 %     | 25 %     | 50 mm/min; ISO 527          |
| Elongation at Yield       | 2.0 %    | 2.0 %    | Type I, 5 mm/min; ASTM D638 |
|                           | 2.5 %    | 2.5 %    | 50 mm/min; ISO 527          |
| Tensile Modulus           | 2.27 GPa | 329 ksi  | 5 mm/min; ASTM D638         |
|                           | 2.37 GPa | 344 ksi  | 1 mm/min; ISO 527           |

| Mechanical Properties      | Metric                  | English                    | Comments                           |
|----------------------------|-------------------------|----------------------------|------------------------------------|
| Flexural Yield Strength    | 70.0 MPa                | 10200 psi                  | 2 mm/min, 50 mm span; ASTM D790    |
|                            | 70.0 MPa                | 10200 psi                  | 2 mm/min; ISO 178                  |
| Flexural Modulus           | 2.20 GPa                | 319 ksi                    | 2 mm/min; ISO 178                  |
|                            | 2.30 GPa                | 334 ksi                    | 1.3 mm/min, 50 mm span; ASTM D790  |
| Izod Impact, Notched       | 3.20 J/cm               | 5.99 ft-lb/in              | ASTM D256                          |
| Izod Impact, Notched (ISO) | 22.0 kJ/m <sup>2</sup>  | 10.5 ft-lb/in <sup>2</sup> | 80*10*4; ISO 180/1A                |
|                            | 8.00 kJ/m <sup>2</sup>  | 3.81 ft-lb/in <sup>2</sup> | 80*10*4; ISO 180/1A                |
|                            | @Temperature -30.0 °C   | @Temperature -22.0 °F      |                                    |
| Charpy Impact, Notched     | 2.60 J/cm <sup>2</sup>  | 12.4 ft-lb/in <sup>2</sup> | Edgew 80*10*4 sp=62mm; ISO 179/1eA |
|                            | 0.900 J/cm <sup>2</sup> | 4.28 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    | 30.0 J                  | 22.1 ft-lb                 | ASTM D3763                         |
|                            | @Temperature 23.0 °C    | @Temperature 73.4 °F       |                                    |

| Thermal Properties                          | Metric                       | English                     | Comments                         |
|---|------------------------------|-----------------------------|----------------------------------|
| CTE, linear, Parallel to Flow               | 88.2 µm/m-°C                 | 49.0 µin/in-°F              | ASTM E 831                       |
|   | @Temperature -40.0 - 40.0 °C | @Temperature -40.0 - 104 °F |                                  |
| CTE, linear, Transverse to Flow             | 88.2 µm/m-°C                 | 49.0 µin/in-°F              | ASTM E 831                       |
|   | @Temperature -40.0 - 40.0 °C | @Temperature -40.0 - 104 °F |                                  |
| Deflection Temperature at 0.46 MPa (66 psi) | 94.0 °C                      | 201 °F                      | unannealed; ASTM D648            |
|   | @Thickness 3.20 mm           | @Thickness 0.126 in         |                                  |
| Deflection Temperature at 1.8 MPa (264 psi) | 81.0 °C                      | 178 °F                      | Flatw 80*10*4 sp=64mm; ISO 75/Af |
|   | 80.0 °C                      | 176 °F                      | unannealed; ASTM D648            |
|   | @Thickness 3.20 mm           | @Thickness 0.126 in         |                                  |
| Vicat Softening Point                       | 98.0 °C                      | 208 °F                      | Rate B/50; ISO 306               |
|   | 99.0 °C                      | 210 °F                      | Rate B/50; ASTM D1525            |
|   | 100 °C                       | 212 °F                      | Rate B/120; ISO 306              |
| UL RTI, Electrical                          | 60.0 °C                      | 140 °F                      | UL 746B                          |

| Thermal Properties                | Metric                   | English                    | Comments |
|-----------------------------------|--------------------------|----------------------------|----------|
| UL RTI, Mechanical with Impact    | 60.0 °C                  | 140 °F                     | UL 746B  |
| UL RTI, Mechanical without Impact | 60.0 °C                  | 140 °F                     | UL 746B  |
| Flammability, UL94                | HB<br>@Thickness 1.50 mm | HB<br>@Thickness 0.0591 in | UL 94    |

| Electrical Properties                | Metric            | English            | Comments            |
|--------------------------------------|-------------------|--------------------|---------------------|
| Arc Resistance                       | 60 - 120 sec      | 60 - 120 sec       | Tungsten; ASTM D495 |
| Comparative Tracking Index           | >= 600 V          | >= 600 V           | UL 746A             |
| Hot Wire Ignition, HWI               | 15 - 30 sec       | 15 - 30 sec        | UL 746A             |
| High Amp Arc Ignition, HAI           | >= 120 arcs       | >= 120 arcs        | UL 746A             |
| High Voltage Arc-Tracking Rate, HVTR | 80.0 - 150 mm/min | 3.15 - 5.91 in/min | UL 746A             |

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China