# CYCOLAC™ MG37EPX resin

Acrylonitrile Butadiene Styrene

SABIC Innovative Plastics

## Message:

ABS plating grade optimized for a broad processing window for both painted and plated applications. NSF standard 61 compliant (80 sq in/L).

| General Information | | | |
|---|---|---|---|
| UL YellowCard | E121562-100896040 | | |
| Features | Good Processability<br>Paintable<br>Platable | | |
| Agency Ratings | NSF 61 | | |
| Processing Method | Injection Molding | | |
| **Physical** | **Nominal Value** | **Unit** | **Test Method** |
| Specific Gravity | | | |
| -- | 1.05 | g/cm³ | ASTM D792 |
| -- | 1.04 | g/cm³ | ISO 1183 |
| Melt Mass-Flow Rate (MFR) | | | |
| 230°C/3.8 kg | 6.6 | g/10 min | ASTM D1238 |
| 220°C/10.0 kg | 22 | g/10 min | ISO 1133 |
| Molding Shrinkage - Flow (3.20 mm) | 0.40 to 0.60 | % | Internal Method |
| **Hardness** | **Nominal Value** | **Unit** | **Test Method** |
| Rockwell Hardness (R-Scale) | 106 | | ASTM D785 |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Modulus | | | |
| -- [1] | 2480 | MPa | ASTM D638 |
| -- | 2720 | MPa | ISO 527-2/1 |
| Tensile Strength | | | |
| Yield [2] | 44.0 | MPa | ASTM D638 |
| Yield | 48.0 | MPa | ISO 527-2/5 |
| Break | 36.4 | MPa | ISO 527-2/5 |
| Tensile Strain | | | |
| Yield | 2.0 | % | ISO 527-2/5 |
| Break [3] | 54 | % | ASTM D638 |
| Break | 18 | % | ISO 527-2/5 |
| Flexural Modulus | | | |
| 50.0 mm Span [4] | 2810 | MPa | ASTM D790 |
| -- [5] | 2480 | MPa | ISO 178 |
| Flexural Stress | | | |

| | | | |
|---|---|---|---|
| -- | 73.2 | MPa | ISO 178 |
| Yield, 50.0 mm Span [6] | 90.3 | MPa | ASTM D790 |
| **Impact** | **Nominal Value** | **Unit** | **Test Method** |
| Notched Izod Impact | | | |
| -40°C | 88 | J/m | ASTM D256 |
| 23°C | 250 | J/m | ASTM D256 |
| -40°C [7] | 7.0 | kJ/m² | ISO 180/1A |
| -30°C [8] | 8.2 | kJ/m² | ISO 180/1A |
| 23°C [9] | 23 | kJ/m² | ISO 180/1A |
| Instrumented Dart Impact (23°C, Total Energy) | 35.6 | J | ASTM D3763 |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Deflection Temperature Under Load | | | |
| 0.45 MPa, Unannealed, 3.20 mm | 88.0 | °C | ASTM D648 |
| 1.8 MPa, Unannealed, 3.20 mm | 76.0 | °C | ASTM D648 |
| 1.8 MPa, Unannealed, 64.0 mm Span [10] | 82.4 | °C | ISO 75-2/Af |
| Vicat Softening Temperature | 94.0 | °C | ISO 306/B50 |
| CLTE | | | ISO 11359-2 |
| Flow : -40 to 40°C | 6.0E-5 | cm/cm/°C | |
| Transverse : -40 to 40°C | 6.0E-5 | cm/cm/°C | |
| **Flammability** | **Nominal Value** | | **Test Method** |
| Flame Rating (1.52 mm) | HB | | UL 94 |
| **Fill Analysis** | **Nominal Value** | **Unit** | **Test Method** |
| Melt Viscosity (240°C, 1000 sec^-1) | 217 | Pa·s | ASTM D3835 |
| **Injection** | **Nominal Value** | **Unit** | |
| Drying Temperature | 82.2 to 93.3 | °C | |
| Drying Time | 2.0 to 4.0 | hr | |
| Drying Time, Maximum | 8.0 | hr | |
| Suggested Max Moisture | 0.020 | % | |
| Suggested Shot Size | 50 to 70 | % | |
| Rear Temperature | 216 to 229 | °C | |
| Middle Temperature | 232 to 243 | °C | |
| Front Temperature | 249 to 268 | °C | |
| Nozzle Temperature | 254 to 279 | °C | |
| Processing (Melt) Temp | 254 to 279 | °C | |
| Mold Temperature | 37.8 to 82.2 | °C | |
| Back Pressure | 0.345 to 0.689 | MPa | |
| Screw Speed | 30 to 60 | rpm | |
| Vent Depth | 0.038 to 0.051 | mm | |
| **NOTE** | | | |
| 1. | 5.0 mm/min | | |
| 2. | Type I, 5.0 mm/min | | |

| | |
|---|---|
| 3. | Type I, 5.0 mm/min |
| 4. | 1.3 mm/min |
| 5. | 2.0 mm/min |
| 6. | 1.3 mm/min |
| 7. | 80*10*4 |
| 8. | 80*10*4 |
| 9. | 80*10*4 |
| 10. | 80*10*4 mm |



Recommended distributors for this material

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