# CYCOLOY™ FR Resin CX2244ME - Europe

(PC+ABS) Saudi Basic Industries Corporation (SABIC)

**Product Texts**

CYCOLOY CX2244ME Polycarbonate/Acrylonitrile Butadiene Styrene (PC/ABS) blend is an injection moldable, medium flow, non chlorinated/brominated flame retardant grade. It has a UL94 V0@0.75mm and 5VB@1.5mm flame rating. This grade has improved chemical resistance compared to standard PC/ABS blends and is a good candidate for thin wall applications and hospital/medical equipment.

UL Yellow Card Link E45329-564206

| Processing/Physical Characteristics | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| Melt volume-flow rate, MVR | **15** | cm³/10min | ISO 1133 |
| Temperature | **260** | °C | - |
| Load | **2.16** | kg | - |
| Density of melt | **1060** | kg/m³ | - |
| Thermal conductivity of melt | **0.24** | W/(m K) | - |
| Spec. heat capacity of melt | **2050** | J/(kg K) | - |
| Ejection temperature | **94** | °C | - |
| **ASTM Data** | | | |
| Melt Flow Index, MFI | **18** | g/10min | ASTM D 1238 |
| Temperature | **260** | °C | - |
| Load | **2.16** | kg | - |

| Mechanical properties | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| Tensile Modulus | **2600** | MPa | ISO 527 |
| Yield stress | **65** | MPa | ISO 527 |
| Yield strain | **4** | % | ISO 527 |
| Stress at break | **50** | MPa | ISO 527 |
| Strain at break | **50** | % | ISO 527 |
| Flexural modulus | **2500** | MPa | ISO 178 |
| Charpy notched impact strength, +23°C, 3mm | **40** | kJ/m² | ISO 179/1eA |
| Charpy notched impact strength, -30°C, 3mm | **10** | kJ/m² | ISO 179/1eA |
| Izod notched impact strength, +23°C, 3mm | **40** | kJ/m² | ISO 180/1A |
| Izod notched impact strength, -30°C, 3mm | **10** | kJ/m² | ISO 180/1A |
| **ASTM Data** | | | |
| Tensile Modulus | **2600** | MPa | ASTM D 638 |
| Tensile Strength at Yield | **65** | MPa | ASTM D 638 |
| Tensile Strength at Break | **58** | MPa | ASTM D 638 |
| Elongation at Yield | **4.1** | % | ASTM D 638 |
| Elongation at Break | **100** | % | ASTM D 638 |
| Flexural Modulus | **2500** | MPa | ASTM D 790 |
| Izod Impact notched, 1/8 in | **700** | J/m | ASTM D 256 |
| Izod Impact notched, Low-Temperature | **175** | J/m | ASTM D 256 |
| Temperature | **-30** | °C | - |

| Thermal properties | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| Temp. of deflection under load, 1.80 MPa | **93** | °C | ISO 75-1/-2 |
| Vicat softening temperature, B | **110** | °C | ISO 306 |
| Vicat softening temperature, 120°C/h 50N | **113** | °C | ISO 306 |
| Coeff. of linear therm. expansion, parallel | **77** | E-6/K | ISO 11359-1/-2 |
| Coeff. of linear therm. expansion, normal | **77** | E-6/K | ISO 11359-1/-2 |
| Burning behav. at thickness h | **V-0** | class | IEC 60695-11-10 |
| Thickness tested | **0.8** | mm | - |
| Burning behav. 5V at thickness h | **5VB** | class | IEC 60695-11-20 |
| Thickness tested | **1.5** | mm | - |
| Glow Wire Flammability Index (GWFI) | **960** | °C | IEC 60695-2-12 |
| Glow Wire Ignition Temperature (GWIT) | **800** | °C | IEC 60695-2-13 |
| GWIT - thickness tested (3) | **3** | mm | - |

| ASTM Data | | | |
|---|---|---|---|
| DTUL @ 264 psi | **89** | °C | ASTM D 648 |
| Vicat Temperature | **110** | °C | ASTM D 1525 |

| Electrical properties | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| Volume resistivity | **>1E13** | Ohm*m | IEC 62631-3-1 |
| Surface resistivity | **>1E15** | Ohm | IEC 62631-3-2 |
| Electric strength | **35** | kV/mm | IEC 60243-1 |

| Other properties | Value | Unit | Test Standard |
|---|---|---|---|
| Water absorption | **0.2** | % | Sim. to ISO 62 |
| Humidity absorption | **0.1** | % | Sim. to ISO 62 |
| Density | **1200** | kg/m³ | ISO 1183 |
| Density | **1190** | kg/m³ | ASTM D 792 |

| Processing Recommendation Injection Molding | Value | Unit | Test Standard |
|---|---|---|---|
| Pre-drying - Temperature | **80 - 90** | °C | - |
| Pre-drying - Time | **2 - 4** | h | - |
| Processing humidity | **≤0.02** | % | - |
| Melt temperature | **250 - 300** | °C | - |
| Mold temperature | **60 - 85** | °C | - |
| Feed temperature | **60 - 80** | °C | - |
| Zone 1 | **230 - 280** | °C | - |
| Zone 2 | **240 - 290** | °C | - |
| Zone 3 | **250 - 300** | °C | - |

## Characteristics

**Processing**
Injection Molding

**Additives**
Flame retarding agent

**Special Characteristics**
Flame retardant

**Chemical Resistance**
General Chemical Resistance

**Regional Availability**
Europe