

Product Texts

CYCOLOY CX7211 Polycarbonate/Acrylonitrile Butadiene Styrene (PC/ABS) blend is an injection moldable, medium flow, non chlorinated/brominated flame retardant grade. It has a UL94 V0@1.5mm, 5VA@2.5mm and 5VB@2.0mm flame rating. This grade has improved chemical resistance compared to standard PC/ABS blends and is a good candidate for thin wall applications.

UL Yellow Card Link [F207780-553745](https://www.ul.com/yellow-card/F207780-553745)

| Processing/Physical Characteristics | Value | Unit | Test Standard |
|-------------------------------------|-------|------------------------|---------------|
| ISO Data | | | |
| Melt volume-flow rate, MVR | 14 | cm ³ /10min | ISO 1133 |
| Temperature | 260 | °C | - |
| Load | 2.16 | kg | - |
| Density of melt | 1060 | kg/m ³ | - |
| Thermal conductivity of melt | 0.23 | W/(m K) | - |
| Spec. heat capacity of melt | 2150 | J/(kg K) | - |
| Ejection temperature | 87 | °C | - |
| ASTM Data | | | |
| Melt Flow Index, MFI | 15.5 | g/10min | ASTM D 1238 |
| Temperature | 260 | °C | - |
| Load | 2.16 | kg | - |

| Mechanical properties | Value | Unit | Test Standard |
|--|-------|-------------------|---------------|
| ISO Data | | | |
| Tensile Modulus | 2800 | MPa | ISO 527 |
| Yield stress | 62 | MPa | ISO 527 |
| Yield strain | 4 | % | ISO 527 |
| Stress at break | 55 | MPa | ISO 527 |
| Strain at break | 50 | % | ISO 527 |
| Flexural modulus | 2500 | MPa | ISO 178 |
| Charpy notched impact strength, +23°C, 3mm | 40 | kJ/m ² | ISO 179/1eA |
| Charpy notched impact strength, -30°C, 3mm | 10 | kJ/m ² | ISO 179/1eA |
| Izod notched impact strength, +23°C, 3mm | 40 | kJ/m ² | ISO 180/1A |
| Izod notched impact strength, -30°C, 3mm | 10 | kJ/m ² | ISO 180/1A |
| ASTM Data | | | |
| Tensile Modulus | 2950 | MPa | ASTM D 638 |
| Tensile Strength at Yield | 66 | MPa | ASTM D 638 |
| Tensile Strength at Break | 60 | MPa | ASTM D 638 |
| Elongation at Yield | 4 | % | ASTM D 638 |
| Elongation at Break | 98 | % | ASTM D 638 |
| Flexural Modulus | 2750 | MPa | ASTM D 790 |
| Izod Impact notched, 1/8 in | 625 | J/m | ASTM D 256 |
| Izod Impact notched, Low-Temperature | 125 | J/m | ASTM D 256 |
| Temperature | -30 | °C | - |

| Thermal properties | Value | Unit | Test Standard |
|---|-------|---------|-----------------|
| ISO Data | | | |
| Temp. of deflection under load, 1.80 MPa | 90 | °C | ISO 75-1/-2 |
| Vicat softening temperature, B | 105 | °C | ISO 306 |
| Vicat softening temperature, 120°C/h 50N | 105 | °C | ISO 306 |
| Coeff. of linear therm. expansion, parallel | 77 | E-6/K | ISO 11359-1/-2 |
| Coeff. of linear therm. expansion, normal | 82 | E-6/K | ISO 11359-1/-2 |
| Burning behav. at 1.5 mm nom. thickn. | V-0 | class | IEC 60695-11-10 |
| Thickness tested | 1.5 | mm | - |
| Burning behav. at thickness h | V-1 | class | IEC 60695-11-10 |
| Thickness tested | 1.2 | mm | - |
| Burning behav. 5V at thickness h | 5VB | class | IEC 60695-11-20 |
| Thickness tested | 2.0 | mm | - |
| Thermal Conductivity | 0.2 | W/(m K) | DIN 52616 |
| Glow Wire Flammability Index (GWFI) | 960 | °C | IEC 60695-2-12 |
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CYCOLOY™ FR Resin CX7211 - Asia

(PC+ABS)

Saudi Basic Industries Corporation (SABIC)

| | | | |
|---------------------------------------|------------|----|----------------|
| 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 (1) | 1 | mm | - |
| Glow Wire Ignition Temperature (GWIT) | 800 | °C | IEC 60695-2-13 |
| GWIT - thickness tested (2) | 2 | mm | - |
| Glow Wire Ignition Temperature (GWIT) | 800 | °C | IEC 60695-2-13 |
| GWIT - thickness tested (3) | 3 | mm | - |
| ASTM Data | | | |
| DTUL @ 66 psi | 94 | °C | ASTM D 648 |
| DTUL @ 264 psi | 89 | °C | ASTM D 648 |
| Vicat Temperature | 105 | °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 | 0.24 | % | Sim. to ISO 62 |
| Humidity absorption | 0.12 | % | Sim. to ISO 62 |
| Density | 1190 | kg/m ³ | ISO 1183 |
| Density | 1180 | kg/m ³ | ASTM D 792 |

| Processing Recommendation Injection Molding | Value | Unit | Test Standard |
|--|------------------|-------------|----------------------|
| Pre-drying - Temperature | 80 - 90 | °C | - |
| Pre-drying - Time | 3 - 4 | h | - |
| Processing humidity | ≤0.04 | % | - |
| Melt temperature | 245 - 275 | °C | - |
| Mold temperature | 60 - 80 | °C | - |
| Zone 1 | 220 - 255 | °C | - |
| Zone 2 | 220 - 265 | °C | - |
| Zone 3 | 245 - 275 | °C | - |
| Screw speed | 40 - 70 | rpm | - |
| Back pressure | 0.3 - 0.7 | MPa | - |

Characteristics**Processing**

Injection Molding

Additives

Flame retarding agent

Special Characteristics

Flame retardant

Chemical Resistance

General Chemical Resistance

Regional Availability

Asia Pacific