



# LEXAN<sup>TM</sup> FR RESINS ML5411H

REGION AMERICAS

## DESCRIPTION

LEXAN ML5411H Polycarbonate (PC) is an injection moldable grade that is 9% glass fiber filled. It has a UL94 V2@1.47mm rating.

## TYPICAL PROPERTY VALUES

| PROPERTIES                                   | TYPICAL VALUES | UNITS | TEST METHODS |
|----------------------------------------------|----------------|-------|--------------|
| <b>MECHANICAL</b>                            |                |       |              |
| Tensile Stress, yld, Type I, 5 mm/min        | 60             | MPa   | ASTM D 638   |
| Tensile Stress, brk, Type I, 5 mm/min        | 48             | MPa   | ASTM D 638   |
| Tensile Strain, brk, Type I, 5 mm/min        | 10             | %     | ASTM D 638   |
| Flexural Stress, yld, 1.3 mm/min, 50 mm span | 99             | MPa   | ASTM D 790   |
| Flexural Modulus, 1.3 mm/min, 50 mm span     | 3100           | MPa   | ASTM D 790   |
| <b>IMPACT</b>                                |                |       |              |
| Izod Impact, notched, 23°C                   | 106            | J/m   | ASTM D 256   |
| <b>THERMAL</b>                               |                |       |              |
| HDT, 1.82 MPa, 6.4 mm, unannealed            | 135            | °C    | ASTM D 648   |
| Relative Temp Index, Elec                    | 80             | °C    | UL 746B      |
| Relative Temp Index, Mech w/impact           | 80             | °C    | UL 746B      |
| Relative Temp Index, Mech w/o impact         | 80             | °C    | UL 746B      |
| <b>PHYSICAL</b>                              |                |       |              |
| Specific Gravity                             | 1.27           | -     | ASTM D 792   |
| Water Absorption, 24 hours                   | 0.15           | %     | ASTM D 570   |
| Mold Shrinkage, flow, 3.2 mm                 | 0.2 – 0.4      | %     | SABIC method |
| <b>FLAME CHARACTERISTICS</b>                 |                |       |              |
| UL Recognized, 94V-2 Flame Class Rating      | 1.47           | mm    | UL 94        |
| <b>INJECTION MOLDING</b>                     |                |       |              |
| Drying Temperature                           | 120            | °C    |              |
| Drying Time                                  | 3 – 4          | hrs   |              |
| Drying Time (Cumulative)                     | 48             | hrs   |              |
| Maximum Moisture Content                     | 0.02           | %     |              |
| Melt Temperature                             | 310 – 330      | °C    |              |
| Nozzle Temperature                           | 305 – 325      | °C    |              |
| Front - Zone 3 Temperature                   | 310 – 330      | °C    |              |
| Middle - Zone 2 Temperature                  | 300 – 320      | °C    |              |
| Rear - Zone 1 Temperature                    | 290 – 310      | °C    |              |
| Mold Temperature                             | 80 – 115       | °C    |              |
| Back Pressure                                | 0.3 – 0.7      | MPa   |              |
| Screw Speed                                  | 40 – 70        | rpm   |              |
| Shot to Cylinder Size                        | 40 – 60        | %     |              |
| Vent Depth                                   | 0.025 – 0.076  | mm    |              |