

# LEXAN™ RESIN HF1 1 10

REGION ASIA

## DESCRIPTION

LEXAN™ HF1 1 10 resin is a 25 MFR polycarbonate. UL94 V2 rated.

## TYPICAL PROPERTY VALUES

Revision 20201125

| PROPERTIES                                   | TYPICAL VALUES                 | UNITS    | TEST METHODS |
|----------------------------------------------|--------------------------------|----------|--------------|
| <b>MECHANICAL</b>                            |                                |          |              |
| Tensile Stress, yld, Type I, 50 mm/min       | 62                             | MPa      | ASTM D638    |
| Tensile Stress, brk, Type I, 50 mm/min       | 65                             | MPa      | ASTM D638    |
| Tensile Strain, brk, Type I, 50 mm/min       | 120                            | %        | ASTM D638    |
| Flexural Stress, yld, 1.3 mm/min, 50 mm span | 93                             | MPa      | ASTM D790    |
| Flexural Modulus, 1.3 mm/min, 50 mm span     | 2300                           | MPa      | ASTM D790    |
| <b>IMPACT</b>                                |                                |          |              |
| Izod Impact, notched, 23°C                   | 640                            | J/m      | ASTM D256    |
| Tensile Impact Strength, Type S              | 378                            | kJ/m²    | ASTM D1822   |
| Instrumented Dart Impact Energy @ peak, 23°C | 54                             | J        | ASTM D3763   |
| <b>THERMAL</b>                               |                                |          |              |
| HDT, 1.82 MPa, 3.2mm, unannealed             | 126                            | °C       | ASTM D648    |
| Relative Temp Index, Elec                    | 130                            | °C       | UL 746B      |
| Relative Temp Index, Mech w/impact           | 130                            | °C       | UL 746B      |
| Relative Temp Index, Mech w/o impact         | 130                            | °C       | UL 746B      |
| <b>PHYSICAL</b>                              |                                |          |              |
| Specific Gravity                             | 1.2                            | -        | ASTM D792    |
| Water Absorption, (23°C/24hrs)               | 0.1                            | %        | ASTM D570    |
| Water Absorption, (23°C/Saturated)           | 0.35                           | %        | ASTM D570    |
| Water Absorption, equilibrium, 100°C         | 0.58                           | %        | ASTM D570    |
| Mold Shrinkage, flow, 3.2 mm                 | 0.5 – 0.7                      | %        | SABIC method |
| Melt Flow Rate, 300°C/1.2 kgf                | 25                             | g/10 min | ASTM D1238   |
| <b>OPTICAL</b>                               |                                |          |              |
| Light Transmission, 2.54 mm                  | 88                             | %        | ASTM D1003   |
| Haze, 2.54 mm                                | 1                              | %        | ASTM D1003   |
| <b>ELECTRICAL</b>                            |                                |          |              |
| Hot Wire Ignition {PLC}                      | 2                              | PLC Code | UL 746A      |
| High Voltage Arc Track Rate {PLC}            | 2                              | PLC Code | UL 746A      |
| High Ampere Arc Ign, surface {PLC}           | 1                              | PLC Code | UL 746A      |
| Comparative Tracking Index (UL) {PLC}        | 2                              | PLC Code | UL 746A      |
| <b>FLAME CHARACTERISTICS</b>                 |                                |          |              |
| UL Yellow Card Link                          | <a href="#">E207780-228431</a> | -        | -            |
| UL Yellow Card Link 2                        | <a href="#">E45587-236896</a>  | -        | -            |
| UL Recognized, 94V-2 Flame Class Rating      | 1.09                           | mm       | UL 94        |
| <b>INJECTION MOLDING</b>                     |                                |          |              |

| PROPERTIES                  | TYPICAL VALUES | UNITS | TEST METHODS |
|-----------------------------|----------------|-------|--------------|
| Drying Temperature          | 120            | °C    |              |
| Drying Time                 | 3 – 4          | Hrs   |              |
| Drying Time (Cumulative)    | 48             | Hrs   |              |
| Maximum Moisture Content    | 0.02           | %     |              |
| Melt Temperature            | 270 – 295      | °C    |              |
| Nozzle Temperature          | 265 – 290      | °C    |              |
| Front - Zone 3 Temperature  | 270 – 295      | °C    |              |
| Middle - Zone 2 Temperature | 260 – 280      | °C    |              |
| Rear - Zone 1 Temperature   | 250 – 270      | °C    |              |
| Mold Temperature            | 70 – 95        | °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    |              |

## DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a “seller”), is made exclusively under seller’s standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer’s particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.