

## SABIC Innovative Plastics Lexan® XHT1143 PC (Europe-Africa-Middle East)

Category : Polymer , Thermoplastic , Polycarbonate (PC)

### Material Notes:

XHT1143 is a high flow, UV stabilized, high heat polycarbonate copolymer. It is the lowest heat, UV stabilized product in the LEXAN® XHT portfolio. It is available in a range of opaque and limited transparent colors. This data was supplied by SABIC-IP for the Europe-Africa-Middle East region.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-Lexan-XHT1143-PC-Europe-Africa-Middle-East.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Lexan-XHT1143-PC-Europe-Africa-Middle-East.php)

| Physical Properties                | Metric                               | English                              | Comments   |
|------------------------------------|--------------------------------------|--------------------------------------|--|
| Density                            | 1.20 g/cc                            | 0.0434 lb/in <sup>3</sup>            | ISO 1183   |
| Moisture Absorption at Equilibrium | 0.30 %                               | 0.30 %                               | 23°C / 50% RH; ISO 62                                |
| Water Absorption at Saturation     | 0.30 %                               | 0.30 %                               | ISO 62   |
|                                    | @Temperature 23.0 °C                 | @Temperature 73.4 °F                 |  |
| Melt Flow                          | 16 g/10 min                          | 16 g/10 min                          | [cm <sup>3</sup> /10 min] Melt Volume Rate; ISO 1133 |
|                                    | @Load 1.20 kg,<br>Temperature 300 °C | @Load 2.65 lb,<br>Temperature 572 °F |  |
|                                    | 70 g/10 min                          | 70 g/10 min                          | [cm <sup>3</sup> /10 min] Melt Volume Rate; ISO 1133 |
|                                    | @Load 2.16 kg,<br>Temperature 330 °C | @Load 4.76 lb,<br>Temperature 626 °F |  |

| Mechanical Properties      | Metric                 | English                    | Comments            |
|----------------------------|------------------------|----------------------------|---------------------|
| Tensile Strength at Break  | 60.0 MPa               | 8700 psi                   | 50 mm/min; ISO 527  |
| Tensile Strength, Yield    | 65.0 MPa               | 9430 psi                   | 50 mm/min; ISO 527  |
| Elongation at Break        | 80 %                   | 80 %                       | 50 mm/min; ISO 527  |
| Elongation at Yield        | 6.5 %                  | 6.5 %                      | 50 mm/min; ISO 527  |
| Tensile Modulus            | 2.40 GPa               | 348 ksi                    | 1 mm/min; ISO 527   |
| Flexural Yield Strength    | 100 MPa                | 14500 psi                  | 2 mm/min; ISO 178   |
| Flexural Modulus           | 2.40 GPa               | 348 ksi                    | 2 mm/min; ISO 178   |
| Izod Impact, Notched (ISO) | 10.0 kJ/m <sup>2</sup> | 4.76 ft-lb/in <sup>2</sup> | 80*10*3; ISO 180/1A |
|                            | @Temperature -30.0 °C  | @Temperature -22.0 °F      |                     |
|                            | 14.0 kJ/m <sup>2</sup> | 6.66 ft-lb/in <sup>2</sup> | 80*10*3; ISO 180/1A |
|                            | @Temperature 23.0 °C   | @Temperature 73.4 °F       |                     |

| Mechanical Properties       | Metric                 | English                    | Comments                                   |
|-----------------------------|------------------------|----------------------------|--|
| Mod Impact, Unnotched (ISO) | @Temperature -30.0 °C  | @Temperature -22.0 °F      | 80*10*3; ISO 180/1U                        |
|                             | NB                     | NB                         | 80*10*3; ISO 180/1U                        |
|                             | @Temperature 23.0 °C   | @Temperature 73.4 °F       |  |
| Charpy Impact Unnotched     | NB                     | NB                         | Edgew 80*10*3 sp=62mm; ISO 179/1eU         |
|                             | @Temperature -30.0 °C  | @Temperature -22.0 °F      |  |
|                             | NB                     | NB                         | Edgew 80*10*3 sp=62mm; ISO 179/1eU         |
|                             | @Temperature 23.0 °C   | @Temperature 73.4 °F       |  |
| Charpy Impact, Notched      | 1.20 J/cm <sup>2</sup> | 5.71 ft-lb/in <sup>2</sup> | V-notch Edgew 80*10*3 sp=62mm; ISO 179/1eA |
|                             | @Temperature -30.0 °C  | @Temperature -22.0 °F      |  |
|                             | 1.60 J/cm <sup>2</sup> | 7.61 ft-lb/in <sup>2</sup> | V-notch Edgew 80*10*3 sp=62mm; ISO 179/1eA |
|                             | @Temperature 23.0 °C   | @Temperature 73.4 °F       |  |

| Thermal Properties                          | Metric                       | English                     | Comments                         |
|---|------------------------------|-----------------------------|----------------------------------|
| CTE, linear, Parallel to Flow               | 70.0 µm/m-°C                 | 38.9 µin/in-°F              | ISO 11359-2                      |
|   | @Temperature -40.0 - 40.0 °C | @Temperature -40.0 - 104 °F |                                  |
| CTE, linear, Transverse to Flow             | 70.0 µm/m-°C                 | 38.9 µin/in-°F              | ISO 11359-2                      |
|   | @Temperature -40.0 - 40.0 °C | @Temperature -40.0 - 104 °F |                                  |
| Deflection Temperature at 0.46 MPa (66 psi) | 144 °C                       | 291 °F                      | Flatw 80*10*4 sp=64mm; ISO 75/Bf |
| Deflection Temperature at 1.8 MPa (264 psi) | 132 °C                       | 270 °F                      | Flatw 80*10*4 sp=64mm; ISO 75/Af |
| Vicat Softening Point                       | 150 °C                       | 302 °F                      | Rate B/50; ISO 306               |
|   | 152 °C                       | 306 °F                      | Rate B/120; ISO 306              |

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