

# XYLEX™ X7519HP resin

Polycarbonate + Polyester

SABIC Innovative Plastics Europe

Message:

Good Chemical Resistance, XYLEX grade with good dishwasher performance, USA/Europe Food Contact Comment: While molding of thicker parts, cooling speed has an influence of transparency. Thicker parts may form opaque areas in the centre due to slow cooling.

| General Information                        |                          |                        |                     |
|--------------------------------------------|--------------------------|------------------------|---------------------|
| Features                                   | Food Contact Acceptable  |                        |                     |
|                                            | Good Chemical Resistance |                        |                     |
| RoHS Compliance                            | RoHS Compliant           |                        |                     |
| Processing Method                          | Injection Molding        |                        |                     |
| Physical                                   | Nominal Value            | Unit                   | Test Method         |
| Specific Gravity                           | 1.19                     | g/cm <sup>3</sup>      | ASTM D792, ISO 1183 |
| Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)   | 13                       | g/10 min               | ASTM D1238          |
| Melt Volume-Flow Rate (MVR) (300°C/1.2 kg) | 10.0                     | cm <sup>3</sup> /10min | ISO 1133            |
| Molding Shrinkage - Flow (3.20 mm)         | 0.70 to 0.80             | %                      | Internal Method     |
| Water Absorption                           |                          |                        | ISO 62              |
| Saturation, 23°C                           | 0.16                     | %                      |                     |
| Equilibrium, 23°C, 50% RH                  | 0.14                     | %                      |                     |
| Mechanical                                 | Nominal Value            | Unit                   | Test Method         |
| Tensile Modulus                            |                          |                        |                     |
| -- <sup>1</sup>                            | 2470                     | MPa                    | ASTM D638           |
| --                                         | 2370                     | MPa                    | ISO 527-2/1         |
| Tensile Strength                           |                          |                        |                     |
| Yield <sup>2</sup>                         | 58.0                     | MPa                    | ASTM D638           |
| Yield                                      | 61.0                     | MPa                    | ISO 527-2/50        |
| Break <sup>3</sup>                         | 66.0                     | MPa                    | ASTM D638           |
| Break                                      | 66.0                     | MPa                    | ISO 527-2/50        |
| Tensile Elongation                         |                          |                        |                     |
| Yield <sup>4</sup>                         | 2.0                      | %                      | ASTM D638           |
| Yield                                      | 6.0                      | %                      | ISO 527-2/50        |
| Break <sup>5</sup>                         | 120                      | %                      | ASTM D638           |
| Break                                      | 130                      | %                      | ISO 527-2/50        |
| Flexural Modulus                           |                          |                        |                     |
| 50.0 mm Span <sup>6</sup>                  | 2240                     | MPa                    | ASTM D790           |
| -- <sup>7</sup>                            | 2030                     | MPa                    | ISO 178             |
| Flexural Stress                            |                          |                        |                     |
| --                                         | 90.0                     | MPa                    | ISO 178             |

| Yield, 50.0 mm Span <sup>8</sup>                   | 98.0              | MPa               | ASTM D790                             |
|----------------------------------------------------|-------------------|-------------------|---------------------------------------|
| Impact                                             | Nominal Value     | Unit              | Test Method                           |
| Charpy Notched Impact Strength <sup>9</sup> (23°C) | 13                | kJ/m <sup>2</sup> | ISO 179/1eA                           |
| Notched Izod Impact                                |                   |                   |                                       |
| -30°C                                              | 100               | J/m               | ASTM D256                             |
| 23°C                                               | 700               | J/m               | ASTM D256                             |
| -30°C <sup>10</sup>                                | 8.0               | kJ/m <sup>2</sup> | ISO 180/1A                            |
| 23°C <sup>11</sup>                                 | 10                | kJ/m <sup>2</sup> | ISO 180/1A                            |
| Instrumented Dart Impact (23°C, Total Energy)      | 74.0              | J                 | ASTM D3763                            |
| Thermal                                            | Nominal Value     | Unit              | Test Method                           |
| Deflection Temperature Under Load                  |                   |                   |                                       |
| 1.8 MPa, Unannealed, 3.20 mm                       | 113               | °C                | ASTM D648                             |
| 1.8 MPa, Unannealed, 64.0 mm Span <sup>12</sup>    | 112               | °C                | ISO 75-2/Af                           |
| Vicat Softening Temperature                        |                   |                   |                                       |
| --                                                 | 130               | °C                | ASTM D1525, ISO 306/B50 <sup>13</sup> |
| --                                                 | 132               | °C                | ISO 306/B120                          |
| CLTE                                               |                   |                   |                                       |
| Flow : -40 to 40°C                                 | 6.5E-5            | cm/cm/°C          | ASTM E831                             |
| Flow : -40 to 40°C                                 | 7.5E-5            | cm/cm/°C          | ISO 11359-2                           |
| Transverse : -40 to 40°C                           | 6.7E-5            | cm/cm/°C          | ASTM E831                             |
| Transverse : -40 to 40°C                           | 7.5E-5            | cm/cm/°C          | ISO 11359-2                           |
| Injection                                          | Nominal Value     | Unit              |                                       |
| Drying Temperature                                 | 85.0 to 100       | °C                |                                       |
| Drying Time                                        | 2.0 to 3.0        | hr                |                                       |
| Drying Time, Maximum                               | 8.0               | hr                |                                       |
| Suggested Max Moisture                             | 0.020             | %                 |                                       |
| Suggested Shot Size                                | 40 to 80          | %                 |                                       |
| Hopper Temperature                                 | 50.0              | °C                |                                       |
| Rear Temperature                                   | 275 to 285        | °C                |                                       |
| Middle Temperature                                 | 280 to 290        | °C                |                                       |
| Front Temperature                                  | 290 to 300        | °C                |                                       |
| Nozzle Temperature                                 | 280 to 290        | °C                |                                       |
| Processing (Melt) Temp                             | 280 to 300        | °C                |                                       |
| Mold Temperature                                   | 65.0 to 75.0      | °C                |                                       |
| Back Pressure                                      | 0.100 to 0.500    | MPa               |                                       |
| Screw Speed                                        | 20 to 100         | rpm               |                                       |
| NOTE                                               |                   |                   |                                       |
| 1.                                                 | 5.0 mm/min        |                   |                                       |
| 2.                                                 | Type I, 50 mm/min |                   |                                       |
| 3.                                                 | Type I, 50 mm/min |                   |                                       |
| 4.                                                 | Type I, 50 mm/min |                   |                                       |

|     |                                    |
|-----|------------------------------------|
| 5.  | Type I, 50 mm/min                  |
| 6.  | 1.3 mm/min                         |
| 7.  | 2.0 mm/min                         |
| 8.  | 1.3 mm/min                         |
| 9.  | 80*10*4 sp=62mm                    |
| 10. | 80*10*4                            |
| 11. | 80*10*4                            |
| 12. | 80*10*4 mm                         |
| 13. | Rate B (120°C/h), Loading 2 (50 N) |

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