

## Xylex\* Resin X8300HP

### Asia Pacific: COMMERCIAL

Transparent, US Food Contact compliant, chemically resistant.

This grade will no longer be supported with biocompatibility information and should not be used for medical applications which require biocompatibility.  
Alternative grade HX8300HP.

| TYPICAL PROPERTIES <sup>1</sup>              | TYPICAL VALUE | UNIT                | STANDARD    |
|----------------------------------------------|---------------|---------------------|-------------|
| <b>MECHANICAL</b>                            |               |                     |             |
| Tensile Stress, yld, Type I, 50 mm/min       | 470           | kgf/cm <sup>2</sup> | ASTM D 638  |
| Tensile Stress, brk, Type I, 50 mm/min       | 460           | kgf/cm <sup>2</sup> | ASTM D 638  |
| Tensile Strain, yld, Type I, 50 mm/min       | 5             | %                   | ASTM D 638  |
| Tensile Strain, brk, Type I, 50 mm/min       | 150           | %                   | ASTM D 638  |
| Tensile Modulus, 50 mm/min                   | 15400         | kgf/cm <sup>2</sup> | ASTM D 638  |
| Flexural Stress, yld, 1.3 mm/min, 50 mm span | 720           | kgf/cm <sup>2</sup> | ASTM D 790  |
| Flexural Modulus, 1.3 mm/min, 50 mm span     | 17100         | kgf/cm <sup>2</sup> | ASTM D 790  |
| Hardness, Shore D, 10S reading               | 73            | -                   | ASTM D 2240 |
| Tensile Stress, yield, 50 mm/min             | 55            | MPa                 | ISO 527     |
| Tensile Stress, break, 50 mm/min             | 54            | MPa                 | ISO 527     |
| Tensile Strain, yield, 50 mm/min             | 5             | %                   | ISO 527     |
| Tensile Strain, break, 50 mm/min             | >200          | %                   | ISO 527     |
| Tensile Modulus, 1 mm/min                    | 1600          | MPa                 | ISO 527     |
| Flexural Stress, break, 2 mm/min             | 78            | MPa                 | ISO 178     |
| Flexural Modulus, 2 mm/min                   | 1700          | MPa                 | ISO 178     |
| <b>IMPACT</b>                                |               |                     |             |
| Izod Impact, notched, 23°C                   | 114           | cm-kgf/cm           | ASTM D 256  |
| Instrumented Impact Total Energy, 23°C       | 968           | cm-kgf              | ASTM D 3763 |
| Izod Impact, notched 80*10*4 +23°C           | 8             | kJ/m <sup>2</sup>   | ISO 180/1A  |
| <b>THERMAL</b>                               |               |                     |             |
| Vicat Softening Temp, Rate B/50              | 96            | °C                  | ASTM D 1525 |
| HDT, 0.45 MPa, 3.2 mm, unannealed            | 79            | °C                  | ASTM D 648  |
| HDT, 1.82 MPa, 3.2mm, unannealed             | 75            | °C                  | ASTM D 648  |



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| <b>THERMAL</b>                                |               |                         |                |
| CTE, -40°C to 40°C, flow                      | 1.05E-04      | 1/°C                    | ASTM E 831     |
| CTE, -40°C to 40°C, xflow                     | 1.05E-04      | 1/°C                    | ASTM E 831     |
| Thermal Conductivity                          | 0.23          | W/m-°C                  | ISO 8302       |
| CTE, 23°C to 60°C, flow                       | 9.E-05        | 1/°C                    | ISO 11359-2    |
| CTE, 23°C to 60°C, xflow                      | 9.E-05        | 1/°C                    | ISO 11359-2    |
| Ball Pressure Test, approximate maximum       | 85            | °C                      | IEC 60695-10-2 |
| Vicat Softening Temp, Rate B/120              | 96            | °C                      | ISO 306        |
| HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm       | 80            | °C                      | ISO 75/Ae      |
| <b>PHYSICAL</b>                               |               |                         |                |
| Specific Gravity                              | 1.2           | -                       | ASTM D 792     |
| Mold Shrinkage, flow, 3.2 mm                  | 0.5 - 0.8     | %                       | SABIC Method   |
| Mold Shrinkage, xflow, 3.2 mm                 | 0.4 - 0.6     | %                       | SABIC Method   |
| Melt Flow Rate, 265°C/2.16kg                  | 15            | g/10 min                | ASTM D 1238    |
| Density                                       | 1.17          | g/cm <sup>3</sup>       | ISO 1183       |
| Melt Volume Rate, MVR at 265°C/2.16 kg        | 15            | cm <sup>3</sup> /10 min | ISO 1133       |
| <b>OPTICAL</b>                                |               |                         |                |
| Light Transmission                            | 88            | %                       | ASTM D 1003    |
| Haze                                          | 1             | %                       | ASTM D 1003    |
| Refractive Index                              | 1.539         | -                       | ISO 489        |
| <b>ELECTRICAL</b>                             |               |                         |                |
| Volume Resistivity                            | >1.E+15       | Ohm-cm                  | ASTM D 257     |
| Surface Resistivity                           | >1.E+15       | Ohm                     | ASTM D 257     |
| Comparative Tracking Index (UL) {PLC}         | 0             | PLC Code                | UL 746A        |
| <b>FLAME CHARACTERISTICS</b>                  |               |                         |                |
| Glow Wire Flammability Index 750°C, passes at | 1             | mm                      | IEC 60695-2-12 |



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| PROCESSING PARAMETERS       | TYPICAL VALUE | UNIT |
|-----------------------------|---------------|------|
| <b>Injection Molding</b>    |               |      |
| Drying Temperature          | 65 - 75       | °C   |
| Drying Time                 | 3 - 5         | hrs  |
| Drying Time (Cumulative)    | 8             | hrs  |
| Maximum Moisture Content    | 0.02          | %    |
| Melt Temperature            | 245 - 265     | °C   |
| Nozzle Temperature          | 245 - 265     | °C   |
| Front - Zone 3 Temperature  | 245 - 265     | °C   |
| Middle - Zone 2 Temperature | 240 - 260     | °C   |
| Rear - Zone 1 Temperature   | 240 - 250     | °C   |
| Mold Temperature            | 45 - 60       | °C   |
| Back Pressure               | 0.2 - 0.5     | MPa  |
| Screw Speed                 | 20 - 100      | rpm  |
| Shot to Cylinder Size       | 40 - 80       | %    |
| Vent Depth                  | 0.013 - 0.02  | mm   |



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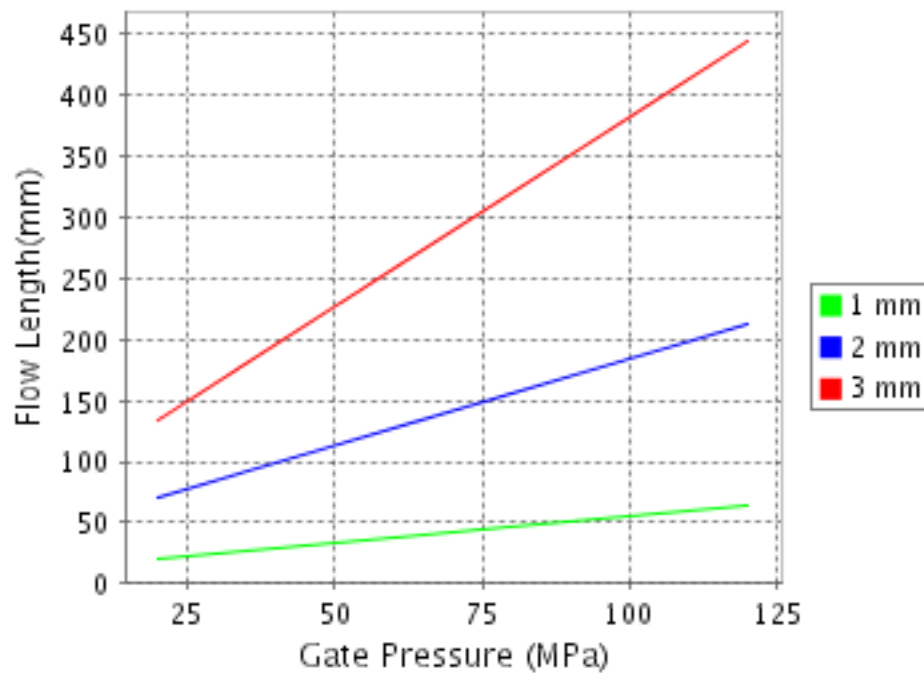
### CALCULATED FLOW LENGTH INDICATION

Moldflow® Radial Flow Analysis

Xylex\* X8300HP

Melt Temperature : 280°C

Mold Temperature : 60°C



**Note:** Technical support is recommended if Gate Pressure is greater than 80 MPa. Contact your local representative.

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