

### Technical Data Sheet



### Alathon 8005M-3

High Density Polyethylene

#### Product Description

Alathon 8005M-3 is a high molecular weight, high density polyethylene copolymer with broad, bimodal molecular weight distribution. Typical applications are non-pressure-rated pipes produced by corrugation or profile wall extrusion. Alathon 8005M-3 should not be used in smooth wall pipes that will contain fluids at pressures above ambient. Alathon 8005M-3 meets the following standard:

- ASTM D3350 Cell Classification: **PE445540A**

#### Regulatory Status

For regulatory compliance information, see Alathon 8005M-3 [Product Stewardship Bulletin \(PSB\) and Safety Data Sheet \(SDS\)](#).

|                          |                                        |
|--------------------------|----------------------------------------|
| <b>Status</b>            | Commercial: Active                     |
| <b>Availability</b>      | North America; South & Central America |
| <b>Application</b>       | Drainage Pipe                          |
| <b>Market</b>            | Pipe                                   |
| <b>Processing Method</b> | Pipe                                   |

| Typical Properties                                      | Nominal Value | English Units     | Nominal Value | SI Units          | Test Method |
|---------------------------------------------------------|---------------|-------------------|---------------|-------------------|-------------|
| <b>Physical</b>                                         |               |                   |               |                   |             |
| Melt Flow Rate, (190 °C/2.16 kg)                        | 0.07          | g/10 min          | 0.07          | g/10 min          | ASTM D1238  |
| Density, (23 °C)                                        | 0.949         | g/cm <sup>3</sup> | 0.949         | g/cm <sup>3</sup> | ASTM D1505  |
| <b>Mechanical</b>                                       |               |                   |               |                   |             |
| Flexural Modulus, (2% Secant)                           | 136000        | psi               | 938           | MPa               | ASTM D790   |
| Tensile Stress at Break                                 | 5170          | psi               | 35.6          | MPa               | ASTM D638   |
| Tensile Stress at Yield                                 | 3540          | psi               | 24.4          | MPa               | ASTM D638   |
| Tensile Elongation at Break                             | 840           | %                 | 840           | %                 | ASTM D638   |
| <b>Environmental Stress Crack Resistance</b>            |               |                   |               |                   |             |
| F <sub>50</sub> (10% Igepal®, Cond B)                   | >1000         | hr                | >1000         | hr                | ASTM D1693  |
| F <sub>50</sub> (100% Igepal®, Cond B)                  | >1000         | hr                | >1000         | hr                | ASTM D1693  |
| <b>Thermal</b>                                          |               |                   |               |                   |             |
| Low Temperature Brittleness                             | <-98          | °F                | <-72          | °C                | ASTM D746   |
| Deflection Temperature Under Load, (66 psi, Unannealed) | 169           | °F                | 76            | °C                | ASTM D648   |
| Oxidative-Induction Time, (200 °C)                      | >40           | min               | >40           | min               | ASTM D3895  |
| Thermal Stability                                       | >428          | °F                | >220          | °C                | ASTM D3350  |



### Notes

Igepal® is a registered trademark of Rhodia.

These are typical property values not to be construed as specification limits.

### Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

### Company Information

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

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