

## Technical Data Sheet

### *Alathon 9307TC*

High Density Polyethylene

#### Product Description

*Alathon 9307TC* is a bimodal, high molecular weight, high density polyethylene resin with excellent processing characteristics. 9307TC is selected by customers for demanding conduit and corrugated pipe applications.

- ASTM D3350 Cell Classification: **PE445560**

|                   |                                           |
|-------------------|-------------------------------------------|
| Application       | Conduit; Corrugated Pipe                  |
| Market            | Industrial, Building & Construction; Pipe |
| Processing Method | 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  |
| (190 °C/21.6 kg)                                                      | 16            | g/10 min          | 16            | 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)                                         | 141000        | psi               | 972           | MPa               | ASTM D790   |
| Tensile Stress at Break                                               | 4970          | psi               | 34.3          | MPa               | ASTM D638   |
| Tensile Stress at Yield                                               | 3560          | psi               | 24.5          | MPa               | ASTM D638   |
| Tensile Elongation at Break                                           | >600          | %                 | >600          | %                 | ASTM D638   |
| Environmental Stress Crack Resistance                                 |               |                   |               |                   |             |
| 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  |
| Notched Constant Ligament Stress, (10% Igepal, 50 °C, 600 psi stress) | >4000         | hr                | >4000         | hr                | ASTM F2136  |
| PENT, (2.4 MPa, 80 °C, Air)                                           | >100          | hr                | >100          | hr                | ASTM F1473  |
| <b>Thermal</b>                                                        |               |                   |               |                   |             |
| Deflection Temperature Under Load, (66 psi, Unannealed)               | 154           | °F                | 68            | °C                | ASTM D648   |
| DSC Induction Temperature                                             | 500           | °F                | 260           | °C                | ASTM D3350  |
| Oxidative-Induction Time, (200 °C)                                    | 100           | min               | 100           | min               | ASTM D3895  |