

# Paxon™ AL55-003

## High Density Polyethylene Resin

### Product Description

Paxon™ AL55-003 is a high density polyethylene blow molding grade offering a good combination of stiffness and stress crack resistance.

### General

|                           |  |  |  |
|---------------------------|--|--|--|
| Availability <sup>1</sup> | <ul style="list-style-type: none"> <li>Africa &amp; Middle East</li> <li>Europe</li> </ul> | <ul style="list-style-type: none"> <li>Latin America</li> <li>North America</li> </ul>   |  |
| Additive                  | <ul style="list-style-type: none"> <li>Thermal Stabilizer: Yes</li> </ul>                  | <ul style="list-style-type: none"> <li>Antistatic: No</li> </ul>   |  |
| Applications              | <ul style="list-style-type: none"> <li>Drainage Pipes</li> <li>Food Packaging</li> </ul>   | <ul style="list-style-type: none"> <li>Household and Industrial chemical containers</li> <li>Pharmaceutical Packaging</li> </ul> | <ul style="list-style-type: none"> <li>Thermoformed Parts</li> <li>Thin Gauge Sheet</li> </ul> |
| Form(s)                   | <ul style="list-style-type: none"> <li>Pellets</li> </ul>                                  |  |  |
| Revision Date             | <ul style="list-style-type: none"> <li>08/21/2020</li> </ul>                               |  |  |

### Resin Properties

|                            | Typical Value (English) | Typical Value (SI)      | Test Based On |
|----------------------------|-------------------------|-------------------------|---------------|
| Density                    | 0.954 g/cm <sup>3</sup> | 0.954 g/cm <sup>3</sup> | ASTM D1505    |
| Melt Index (190°C/2.16 kg) | 0.30 g/10 min           | 0.30 g/10 min           | ASTM D1238    |

### Thermal

|  | Typical Value (English) | Typical Value (SI) | Test Based On     |
|--|-------------------------|--------------------|-------------------|
| Deflection Temperature Under Load (DTUL) at 66psi - Unannealed | 167 °F                  | 75 °C              | ASTM D648         |
| Vicat Softening Temperature                                    | 261 °F                  | 127 °C             | ASTM D1525        |
| Peak Melting Temperature                                       | 268 °F                  | 131 °C             | ExxonMobil Method |
| Crystallization Peak, T <sub>c</sub>                           | 244 °F                  | 118 °C             | ExxonMobil Method |

### Molded Properties

|                                       | Typical Value (English) | Typical Value (SI) | Test Based On |
|---------------------------------------|-------------------------|--------------------|---------------|
| Tensile Strength at Yield             | 4100 psi                | 29 MPa             | ASTM D638     |
| Tensile Strength at Break             |                         |                    | ASTM D638     |
| 2.0 in/min (50 mm/min)                | 2900 psi                | 20 MPa             |               |
| Elongation at Yield                   | 9 %                     | 9 %                | ASTM D638     |
| Flexural Modulus                      |                         |                    |               |
| 1% Secant : 0.051 in/min (1.3 mm/min) | 160000 psi              | 1100 MPa           | ASTM D790A    |
| 2% Secant                             | 130000 psi              | 910 MPa            | ASTM D790     |
| Environmental Stress-Crack Resistance |                         |                    | ASTM D1693B   |
| 100% Igepal                           | 30 hr                   | 30 hr              |               |
| Durometer Hardness (Shore D, 15 sec)  | 63                      | 63                 | ASTM D2240    |

### Impact

|                                | Typical Value (English)   | Typical Value (SI)    | Test Based On |
|--------------------------------|---------------------------|-----------------------|---------------|
| Charpy Notched Impact Strength |                           |                       | ISO 179/1eA   |
| -4°F (-20°C)                   | 2.9 ft-lb/in <sup>2</sup> | 6.0 kJ/m <sup>2</sup> |               |
| 73°F (23°C)                    | 4.8 ft-lb/in <sup>2</sup> | 10 kJ/m <sup>2</sup>  |               |

### Additional Information

All molded properties were measured on compression molded plaques. AL55-003 is NSF® -51 Certified and UL recognized. Contact your ExxonMobil Chemical representative for details. AL55-003 has US Pharmacopoeia & European Pharmaceutical recognition.

### Legal Statement

Contact your ExxonMobil Chemical Customer Service Representative for potential food contact application compliance (e.g. FDA, EU, HPFB).

This product is not intended for use in medical applications and should not be used in any such applications.

### Notes

Typical properties: these are not to be construed as specifications.

<sup>1</sup> Product may not be available in one or more countries in the identified Availability regions. Please contact your Sales Representative for complete Country Availability.

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For additional technical, sales and order assistance: [www.exxonmobilchemical.com/ContactUs](http://www.exxonmobilchemical.com/ContactUs)

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