

Product Datasheet



# ExxonMobil™ HDPE HYA 900

## High Density Polyethylene Resin

### Product Description

ExxonMobil™ HDPE HYA 900 is a homopolymer HDPE grade, characterized by high stiffness, high rigidity and high flow.

### General

|                           |                           |                  |                                                     |
|---------------------------|---------------------------|------------------|-----------------------------------------------------|
| Availability <sup>1</sup> | ▪ Africa & Middle East    | ▪ Asia Pacific   | ▪ Europe                                            |
| Additive                  | ▪ Thermal Stabilizer: Yes |                  |                                                     |
| Applications              | ▪ Drainage Pipes          | ▪ Food Packaging | ▪ Liquid Food Containers for Milk, Water and Juices |
| Revision Date             | ▪ 10/13/2021              |                  |                                                     |

### Resin Properties

|                                      | Typical Value (English) | Typical Value (SI)      | Test Based On |
|--------------------------------------|-------------------------|-------------------------|---------------|
| Density                              | 0.961 g/cm <sup>3</sup> | 0.961 g/cm <sup>3</sup> | ASTM D1505    |
| Melt Index (190°C/2.16 kg)           | 0.70 g/10 min           | 0.70 g/10 min           | ASTM D1238    |
| High Load Melt Index (190°C/21.6 kg) | 46 g/10 min             | 46 g/10 min             | ASTM D1238    |

### Thermal

|                             | Typical Value (English) | Typical Value (SI) | Test Based On |
|-----------------------------|-------------------------|--------------------|---------------|
| Vicat Softening Temperature | 261 °F                  | 127 °C             | ASTM D1525    |

### Molded Properties

|                                                     | Typical Value (English) | Typical Value (SI) | Test Based On |
|-----------------------------------------------------|-------------------------|--------------------|---------------|
| Tensile Modulus (0.20 in/min (5.0 mm/min))          | 200000 psi              | 1400 MPa           | ASTM D638     |
| Tensile Stress at 100%<br>2.0 in/min (50 mm/min)    | 2100 psi                | 14 MPa             | ASTM D638     |
| Tensile Strength at Yield<br>2.0 in/min (50 mm/min) | 3600 psi                | 25 MPa             | ASTM D638     |
| Elongation at Break<br>(2.0 in/min (50 mm/min))     | > 100 %                 | > 100 %            | ASTM D638     |
| Environmental Stress-Crack Resistance               |                         |                    | ASTM D1693    |
| 10% Igepal                                          | < 20 hr                 | < 20 hr            |               |
| 100% Igepal                                         | < 20 hr                 | < 20 hr            |               |
| Durometer Hardness (Shore D, 15 sec)                | 62                      | 62                 | ASTM D2240    |

### Impact

|                              | Typical Value (English)   | Typical Value (SI)    | Test Based On |
|------------------------------|---------------------------|-----------------------|---------------|
| Notched Izod Impact Strength | 4.5 ft-lb/in <sup>2</sup> | 9.5 kJ/m <sup>2</sup> | ISO 180/1A    |

### 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.

### Processing Statement

The molded properties have been measured on compression molded sheets, prepared according to ASTM D4703 and ASTM D 638. ASTM D 638: Specimen type T1 / thickness 3 mm (118 mil); tensile modulus : speed of testing 5 mm/min (197 mil/min); tensile strength at yield and elongation at break: speed of testing 50 mm/min (1970 mil/min). ASTM D1693: Conditions B, F50, 10 % Igepal and 100 % Igepal

### 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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