

**ERACLENE<sup>®</sup>**

HDPE

**MR 80**

High density polyethylene

Eraclene MR 80 is a high density polyethylene resin (HDPE), with antioxidants, suitable for injection moulding application. Eraclene MR 80 shows a good balance between processability and mechanical properties.

**Main applications**

Eraclene MR 80 is specifically designed for houseware and thin-walled containers.

**Main properties**

| Resin Properties                 | Test method     | Unit              | Value  |
|----------------------------------|-----------------|-------------------|--------|
| Melt Flow Rate (190 °C/ 2.16 kg) | ISO 1133        | g/10min           | 18     |
| Melt Flow Rate (190 °C/ 5 kg)    | ISO 1133        | g/10min           | -      |
| Melt Flow Rate (190 °C/ 21.6 kg) | ISO 1133        | g/10min           | -      |
| Density                          | ISO 1183        | g/cm <sup>3</sup> | 0.954  |
| Melting point                    | Internal method | °C                | 135    |
| Brittleness point                | ASTM D 746      | °C                | < - 60 |
| Vicat softening point (1 kg)     | ISO 306/A       | °C                | 126    |

| Mechanical Properties *                         | Test method | Unit | Value |
|-------------------------------------------------|-------------|------|-------|
| Tensile stress at yield                         | ISO 527     | MPa  | 27    |
| Tensile strenght at break                       | ISO 527     | MPa  | 14    |
| Elongation at break                             | ISO 527     | %    | 200   |
| Flexural modulus                                | ISO 178     | MPa  | 1250  |
| Izod impact strength, notched                   | ISO 180/A   | J/m  | 45    |
| Hardness Shore D                                | ISO 868/A   |      | 65    |
| Environmental Stress Cracking Resistance (ESCR) | ISO 22088   | h    | -     |

\* Values are referred to compression moulded specimens. Actual properties are typical and may vary depending upon operating conditions.

## Processing conditions

Eraclene MR 80 is readily processable by conventional injection moulding equipment with excellent results.

Typical processing conditions (\*)

Temperature profile of the barrel (°C) 190 - 260

Temperature of the mould (°C) 10 - 40

(\*) Processing conditions are depending on several parameters: the shape of the part to be manufactured, the localisation of the injection point, the injection moulding machine and the cooling of the mould.

## Storage and handling

Eraclene MR 80 is supplied in pellet form. This material may readily be conveyed and bulk fed through equipment designed for conventional pelletised polyethylene resin, provided the equipment is designed to prevent accumulation of the fines and dust particles that are contained in all polyethylene resins. These fines and dust particles can, under certain conditions, pose an explosion hazard. We recommend that the conveying system used be equipped with filters of adequate size, operated and maintained in such a manner to ensure that no leaks develop and earthed adequately. We further recommend that good housekeeping be practised throughout your facility.

Stored in an airy and dry room, at temperatures between 20°C and 30°C, with no direct sunlight, the shelf life is about 18 months. However, before using this product, read and understand the relevant POLIMERI EUROPA Safety Data Sheet.

## Availability

Contact the POLIMERI EUROPA sales office nearest to you regarding availability and your specific application requirements.

## Food contact status

Eraclene MR 80 complies with the rules and regulations of the European Union, as well as other countries, regarding the use of plastic materials in food contact applications. Certificates of compliance are available upon request.

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**IMPORTANT:** please consult the relevant safety data sheet for more detailed information. The information and data presented herein are to the best of our knowledge true and accurate but no warranty or guarantee, expressed or implied, is made nor is any liability accepted with respect to the use of such information and data.

Polimeri europa is available to provide the guaranteed values for each product on demand.