

## Technical Information



# DOW™ HDPE KT 10000 UE

## High Density Polyethylene Resin

### Overview

HDPE KT 10000 UE Polyethylene Resin is an UV stabilised resin with very narrow molecular weight distribution. It was developed to impart excellent stiffness, combined with good impact strength to injection moulded parts, at minimum warpage.

Note: HDPE KT 10000 UE Polyethylene Resin should comply with FDA regulation 177.1520 and with most European food contact regulations when used unmodified and processed according to good manufacturing practices for food contact applications. Please, contact your nearest Dow office for food contact compliance statements. The purchaser remains responsible for determining whether the use complies with all relevant regulations.

#### Applications:

- Cases and boxes for industrial parts.
- Farm produce and beverage crates.
- Pails and buckets.

### Additive

- Antiblock: No
- Slip: No
- Processing Aid: No

| Physical                                          | Nominal Value (English)    | Nominal Value (SI)      | Test Method |
|---------------------------------------------------|----------------------------|-------------------------|-------------|
| Density                                           | 0.964 g/cm <sup>3</sup>    | 0.964 g/cm <sup>3</sup> | ASTM D792   |
| Melt Index                                        |                            |                         | ISO 1133    |
| 190°C/2.16 kg                                     | 8.0 g/10 min               | 8.0 g/10 min            |             |
| 190°C/5.0 kg                                      | 22 g/10 min                | 22 g/10 min             |             |
| Spiral Flow <sup>1, 2</sup>                       | 28.9 in                    | 73.5 cm                 | Dow Method  |
| Molding Shrinkage - Flow                          | 0.021 in/in                | 2.1 %                   | ASTM D955   |
| Environmental Stress-Cracking Resistance (ESCR)   |                            |                         | ASTM D1693  |
| 100% AntaroX CO-630, Compression Molded           | 2.50 hr                    | 2.50 hr                 |             |
| Mechanical                                        | Nominal Value (English)    | Nominal Value (SI)      | Test Method |
| Tensile Strength                                  |                            |                         | ASTM D638   |
| Yield, Compression Molded                         | 4210 psi                   | 29.0 MPa                |             |
| Break, Compression Molded                         | 4640 psi                   | 32.0 MPa                |             |
| Tensile Elongation                                |                            |                         | ASTM D638   |
| Break, Compression Molded                         | 800 %                      | 800 %                   |             |
| Flexural Modulus - 2% Secant (Compression Molded) | 152000 psi                 | 1050 MPa                | ASTM D790   |
| Impact                                            | Nominal Value (English)    | Nominal Value (SI)      | Test Method |
| Tensile Impact Strength (Compression Molded)      | 36.6 ft-lb/in <sup>2</sup> | 77.0 kJ/m <sup>2</sup>  | ASTM D1822  |
| Hardness                                          | Nominal Value (English)    | Nominal Value (SI)      | Test Method |
| Shore Hardness (Shore D, Compression Molded)      | 66                         | 66                      | ISO 868     |
| Thermal                                           | Nominal Value (English)    | Nominal Value (SI)      | Test Method |
| Vicat Softening Temperature                       | 268 °F                     | 131 °C                  | ISO 306/A   |

### Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

<sup>1</sup> Melt Temperature: 482°F (250°C)

<sup>2</sup> 2 seconds injection

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