

# DuPure® L 50 E

Polypropylene Homopolymer

Ducor Petrochemicals BV

## Message:

**Description**  
DuPure L 50 E is a polypropylene homopolymer for extrusion applications. DuPure L 50 E shows an easy processability and a good stiffness/impact balance at ambient temperature.

**Applications**  
DuPure L 50 E is suitable for: cast films, OPP films, tape yarns, monofilaments, strapping, and thermoformed parts.

| General Information                       |                              |                   |             |
|-------------------------------------------|------------------------------|-------------------|-------------|
| Features                                  | Food Contact Acceptable      |                   |             |
|                                           | Good Processability          |                   |             |
|                                           | Homopolymer                  |                   |             |
| Uses                                      | Cast Film                    |                   |             |
|                                           | Film                         |                   |             |
|                                           | Monofilaments                |                   |             |
|                                           | Strapping                    |                   |             |
|                                           | Thermoforming Applications   |                   |             |
|                                           | Yarn                         |                   |             |
| Agency Ratings                            | EC 1907/2006 (REACH)         |                   |             |
|                                           | EC 1935/2004                 |                   |             |
|                                           | EN 71-3                      |                   |             |
|                                           | EU 10/2011                   |                   |             |
|                                           | EU 2000/53/EC                |                   |             |
|                                           | EU 2002/96/EC (WEEE)         |                   |             |
|                                           | EU 2005/84/EC                |                   |             |
|                                           | EU 94/62/EC                  |                   |             |
|                                           | FDA 21 CFR 177.1520(a) 1 (i) |                   |             |
|                                           | FDA 21 CFR 177.1520(c) 1.1a  |                   |             |
| RoHS Compliance                           | RoHS Compliant               |                   |             |
| Processing Method                         | Cast Film                    |                   |             |
|                                           | Extrusion                    |                   |             |
|                                           | Thermoforming                |                   |             |
| Physical                                  | Nominal Value                | Unit              | Test Method |
| Density                                   | 0.910                        | g/cm <sup>3</sup> | ISO 1183    |
| Melt Mass-Flow Rate (MFR) (230°C/2.16 kg) | 7.5                          | g/10 min          | ISO 1133    |

| Hardness                                                  | Nominal Value | Unit              | Test Method  |
|-----------------------------------------------------------|---------------|-------------------|--------------|
| Ball Indentation Hardness (H 358/30)                      | 77.0          | MPa               | ISO 2039-1   |
| Mechanical                                                | Nominal Value | Unit              | Test Method  |
| Tensile Modulus                                           | 1500          | MPa               | ISO 527-2/1  |
| Tensile Stress (Yield)                                    | 35.0          | MPa               | ISO 527-2/50 |
| Tensile Strain                                            |               |                   | ISO 527-2/50 |
| Yield                                                     | 9.0           | %                 |              |
| Break                                                     | > 50          | %                 |              |
| Coefficient of Friction (vs. Itself - Dynamic, Cast Film) | > 0.50        |                   | DIN 53375    |
| Films                                                     | Nominal Value | Unit              | Test Method  |
| Tensile Elongation                                        |               |                   | DIN 53455    |
| MD : Break, Cast Film                                     | 670           | %                 |              |
| TD : Break, Cast Film                                     | 700           | %                 |              |
| Flexural Modulus                                          |               |                   | DIN 53121    |
| MD : Cast Film                                            | 670           | MPa               |              |
| TD : Cast Film                                            | 650           | MPa               |              |
| Dart Drop Impact <sup>1</sup> (Cast Film)                 | 330           | g                 | ASTM D1709   |
| Impact                                                    | Nominal Value | Unit              | Test Method  |
| Charpy Notched Impact Strength                            |               |                   | ISO 179/1eA  |
| -30°C                                                     | 1.6           | kJ/m <sup>2</sup> |              |
| 23°C                                                      | 3.5           | kJ/m <sup>2</sup> |              |
| Charpy Unnotched Impact Strength                          |               |                   | ISO 179/1eU  |
| -30°C                                                     | 15            | kJ/m <sup>2</sup> |              |
| 23°C                                                      | 130           | kJ/m <sup>2</sup> |              |
| Thermal                                                   | Nominal Value | Unit              | Test Method  |
| Heat Deflection Temperature                               |               |                   |              |
| 0.45 MPa, Unannealed                                      | 85.0          | °C                | ISO 75-2/B   |
| 1.8 MPa, Unannealed                                       | 55.0          | °C                | ISO 75-2/A   |
| Vicat Softening Temperature                               |               |                   |              |
| --                                                        | 154           | °C                | ISO 306/A    |
| --                                                        | 90.0          | °C                | ISO 306/B    |
| Melting Temperature (DSC)                                 | 163           | °C                | ISO 3146     |
| Optical                                                   | Nominal Value | Unit              | Test Method  |
| Gloss (20°, Cast Film)                                    | 130           |                   | ISO 2813     |
| Haze (Cast Film)                                          | 0.50          | %                 | ASTM D1003   |
| Additional Information                                    | Nominal Value | Unit              | Test Method  |
| Tear Strength <sup>2</sup>                                |               |                   | DIN 53455    |
| MD                                                        | 43.0          | MPa               |              |
| TD                                                        | 39.0          | MPa               |              |
| NOTE                                                      |               |                   |              |
| 1.                                                        | F50           |                   |              |

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