



## Technical Data Sheet

# DOW™ LDPE PT 7007 Low Density Polyethylene Resin

## Overview

DOW™ LDPE PT 7007 Low Density Polyethylene Resin is a low-density polyethylene suitable designed for extrusion coating applications. DOW™ LDPE PT 7007 Polyethylene Resin has been designed to offer minimum volatile organic carbon (VOC) levels for use in extrusion coating, contributing to low factory emissions and optimal sensory performance.

## Sustainability Attribute:



DOW™ LDPE PT 7007 Polyethylene Resin exhibits:

- Excellent draw down.
- Good edge stability.
- Low neck-in.

Note: DOW™ LDPE PT 7007 Polyethylene Resin should comply with U.S. FDA CFR 177.1520(c)2.2 and with EU, No. 10/2011 when used unmodified and processed according to good manufacturing practices for food contact applications. Please contact your nearest office regarding food contact compliance statements. The purchaser remains responsible for determining whether the use complies with all relevant regulations.

Applications:

- Paper.
- Board and foil coatings for packaging.
- Food and non-food.

## Physical Properties

| Physical                   | Nominal Value | Unit (English)    | Nominal Value | Unit (SI)         | Test Method <sup>1</sup> |
|----------------------------|---------------|-------------------|---------------|-------------------|--------------------------|
| Density                    | 0.918         | g/cm <sup>3</sup> | 0.918         | g/cm <sup>3</sup> | ASTM D792                |
| Melt Index (190°C/2.16 kg) | 7.5           | g/10 min          | 7.5           | g/10 min          | ISO 1133                 |
| <b>Mechanical</b>          |               |                   |               |                   |                          |
| Tensile Stress             |               |                   |               |                   | ISO 527-2                |
| Yield                      | 1160          | psi               | 8.00          | MPa               |                          |
| Break                      | 1450          | psi               | 10.0          | MPa               |                          |

1. ASTM: American Society for Testing and Materials  
ISO: International Standardization Organization

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

## Physical Properties (Cont.)

| Mechanical                               | Nominal Value | Unit (English)               | Nominal Value | Unit (SI)               | Test Method  |
|--|---------------|------------------------------|---------------|-------------------------|--------------|
| Tensile Strain (Break)                   | 400           | %                            | 400           | %                       | ISO 527-2    |
| <b>Films</b>                             |               |                              |               |                         |              |
| Seal Initiation Temperature <sup>2</sup> | 221           | °F                           | 105           | °C                      | Dow Method   |
| Water Vapor Transmission <sup>3</sup>    | 17            | g/100 in <sup>2</sup> /24 hr | 260           | g/m <sup>2</sup> /24 hr | ASTM E398-83 |
| <b>Thermal</b>                           |               |                              |               |                         |              |
| Vicat Softening Temperature              | 192           | °F                           | 89.0          | °C                      | ISO 306/A    |
| <b>Extrusion</b>                         |               |                              |               |                         |              |
| Melt Temperature                         | 518 to 635    | °F                           | 270 to 335    | °C                      |              |
| Minimum Coating Weight <sup>4</sup>      | 3.1           | lb/ream                      | 5.0           | g/m <sup>2</sup>        | Dow Method   |
| Neck-in                                  |               |                              |               |                         |              |
| --5                                      | 2.6           | in                           | 65.0          | mm                      |              |
| --6                                      | 2.8           | in                           | 70.0          | mm                      |              |
| --7                                      | 3.9           | in                           | 75.0          | mm                      |              |

2. Temperature required to reach 3 N/15 mm for a 25 g/m<sup>2</sup> coating of DOW™ LDPE PT 7007 Low Density Polyethylene Resin onto paper.
3. 23°C, 90% RH. Divide by coating weight in g/m<sup>2</sup> to obtain actual WVTR, e.g. at 20 g/m<sup>2</sup> DOW™ LDPE PT 7007 Low Density Polyethylene Resin the WVTR is 378/20 = 18.9 g/m<sup>2</sup> day
4. At 320°C set temperature.
5. 100 m/min, 25 g/m<sup>2</sup> coatings at 290°C set temperature.
6. 200 m/min, 25 g/m<sup>2</sup> coatings at 290°C set temperature.
7. 300 m/min, 25 g/m<sup>2</sup> coatings at 290°C set temperature.

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