Technical Information

DOW™ LDPE 4010
Low Density Polyethylene Resin

Overview

Dow Polyethylene LDPE 4010 is a general purpose Extrusion Coating Resin.

It complies with:

- European Commission Regulation (EU) No 10/2011.

Consult regulations for complete details.

Additive

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

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	0.918	g/cm³	0.918	g/cm³	ASTM D792
Base Density [1]	0.918	g/cm³	0.918	g/cm³	Dow Method
Melt Index (190°C/2.16 kg)	10	g/10 min	10	g/10 min	ASTM D1238
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Stress					ISO 527-2
Yield	1160	psi	8.00	MPa	
--	1740	psi	12.0	MPa	
Tensile Strain (Break)	500	%	500	%	ISO 527-2
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Vicat Softening Temperature	192	°F	89.0	°C	ASTM D1525
Melting Temperature (DSC)	221	°F	105	°C	Dow Method

Additional Information

Selection note:

- WVTR: Lyssy or Mocon
- Chill roll: matte or glossy
- Air gap:250mm or 200mm
- Nip Off-set : -15mm or 0mm
- Tset: 260, 290 or 320°C

Substrate:

- Paper type (e.g. Kraft Paper) or Film type (OPP) - weight in g/m² or thickness in micron

Extrusion	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Draw Down [2] (554°F (290°C))	740	ft/min	230	m/min	Dow Method
Minimum Coating Weight - Calculated [3] (554°F (290°C))	4.3	lb/ream	7.0	g/m²	Dow Method
Neck-in [4] (554°F (290°C))	3.9	in	100.0	mm	Dow Method

Extrusion Notes

Fabrication Conditions for Extrusion Coatings:

- Laminator settings applied for extrusion processing:
  - Air-gap = 250 mm
  - Nip-off set = -15 mm
  - Chill Roll glossy

Notes

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

[1] Base density is estimated using the assumption that every 1000 ppm of antiblock in the finished product raises the density of the polymer by 0.0006 g/cm³. Base density is the estimated density of the polymer if it did not contain any antiblock.

[2] Acceleration from 15g/m² coating at selected set extruder temperature

[3] Acceleration from 15g/m² coating at selected set extruder temperature

[4] 25g/m² coatings at selected running conditions