

# DOW™ LDPE 748I

Low Density Polyethylene Resin  
The Dow Chemical Company



ides.com/prospector

## Technical Data

### Product Description

- A low density polyethylene for stretching/cling film applications
- Complies with U.S. FDA 21 CFR 177.1520 (c) 2.1
- Complies with Canadian HPFB No Objection (With Limitations)
- Consult the regulations for complete details

### General

Material Status	• Commercial: Active
Literature <sup>1</sup>	• <a href="#">Technical Datasheet</a>
Search for UL Yellow Card	• <a href="#">The Dow Chemical Company</a>
Availability	• Latin America • North America
Agency Ratings	• FDA 21 CFR 177.1520(c) 2.1 • HPFB (Canada) No Objection <sup>2</sup>
Forms	• Pellets
Processing Method	• Blown Film

Physical	Nominal Value Unit	Test Method
Specific Gravity	0.921 g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	7.0 g/10 min	ASTM D1238

Films	Nominal Value Unit	Test Method
Film Thickness - Tested	25 µm	
Film Puncture Resistance (25 µm)	2.65 J/cm <sup>3</sup>	Internal Method
Film Toughness		ASTM D882
MD: 25 µm	183 J/cm <sup>3</sup>	
TD: 25 µm	156 J/cm <sup>3</sup>	
Tensile Strength		ASTM D882
MD: Yield, 25 µm	10.6 MPa	
TD: Yield, 25 µm	9.99 MPa	
MD: Break, 25 µm	27.1 MPa	
TD: Break, 25 µm	17.5 MPa	
Tensile Elongation		ASTM D882
MD: Break, 25 µm	510 %	
TD: Break, 25 µm	640 %	
Dart Drop Impact (25 µm)	43 g	ASTM D1709A
Elmendorf Tear Strength		ASTM D1922
MD: 25 µm	190 g	
TD: 25 µm	260 g	

Thermal	Nominal Value Unit	Test Method
Vicat Softening Temperature	88.9 °C	ASTM D1525
Melting Temperature (DSC)	110 °C	Internal Method

Optical	Nominal Value Unit	Test Method
Gloss (45°, 25.4 µm)	92	ASTM D2457
Haze (25.4 µm)	1.1 %	ASTM D1003

### Extrusion Notes

- Fabrication Conditions For Cast Film:
- Screw A: Size: 2.0 in. (51 mm); 30:1 L/D
    - Melt Temperature: 498°F (259°C)
    - Screw Speed: 47 rpm
  - Screw B: Size: 2.5 in. (63.5 mm); 30:1 L/D
    - Melt Temperature: 500°F (260°C)
    - Screw Speed: 31 rpm
  - Screw C: Size: 2.5 in. (63.5 mm); 30:1 L/D
    - Melt Temperature: 499°F (260°C)

## DOW™ LDPE 748I

Low Density Polyethylene Resin

The Dow Chemical Company

- Screw Speed: 33 rpm
- Screw D: Size: 2.5 in. (63.5 mm); 30:1 L/D
  - Melt Temperature: 500°F (260°C)
  - Screw Speed: 33 rpm
- Screw E: Size: 2.0 in. (51 mm); 30:1 L/D
  - Melt Temperature: 498°F (259°C)
  - Screw Speed: 37 rpm
- Screw Type: DSB II
- Die Gap: 25 mil (0.025 mm)
- Chill Roll Temperature: 70 °F (21 °C)
- Melt Temperature: 500 °F (260 °C)
- Output: 345 lb/hr
- Line Speed: 400 fpm (122 m/min)

### Notes

<sup>1</sup> These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

<sup>2</sup> With limitations

<sup>3</sup> Typical properties: these are not to be construed as specifications.

---

## Where to Buy

---

### Supplier

**The Dow Chemical Company**  
Midland, MI USA  
**Telephone:** 800-441-4369  
**Web:** <http://plastics.dow.com/>

---

### Distributor

#### Entec Polymers

**Telephone:** 800-375-5440  
**Web:** <http://www.entecpolymers.com/>  
**Availability:** North America

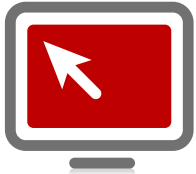
#### PolyOne Distribution

*PolyOne Distribution is a global distribution company. Contact PolyOne Distribution for availability of individual products by country.*

**Telephone:** 800-894-4266  
**Web:** <http://polyonedistribution.com/>  
**Availability:** Global



Founded in 1986 and based in Laramie, Wyoming, IDES is now part of the UL family of companies. UL is a premier global independent safety science company with more than a century of proven history. Employing nearly 10,000 professionals in over 100 countries, UL has five distinct business units -- Product Safety, Environment, Life & Health, Knowledge Services and Verification Services -- to meet the expanding needs of our customers and to deliver on our public safety mission.



### Prospector Plastics Database - [www.ides.com/prospector](http://www.ides.com/prospector)

Prospector is a searchable online database that includes 85,000 data sheets from 875 manufacturers and 44,000 UL yellow cards. Each data sheet includes property, processing and supplier contact information. Prospector is relied on by nearly 400,000 design engineers and plastics processors. Using Prospector, they save time with plastic material selection by quickly and easily referencing technical information critical to the success of their products.

*"Prospector is absolutely the best and most well-known search engine for plastic raw materials in the world. We use Prospector every day – it's a real time saver!"*

– Birgit Elvardt Bader, Production Manager, Micotron

#### Power Searches

**Property Search** – select plastics by 500 key properties and design parameters.

**Alternative Resins Search** – find replacement plastics within minutes.

**Automotive Plastics Search** – easily locate automotive approved plastics.

**Curve Data** – view, overlay and export curve data.



### Material Data Management – [www.ides.com/datasheets](http://www.ides.com/datasheets)

With our data management services, plastic suppliers and distributors can have custom search interfaces available on their website for their customers, website visitors, sales and customer service teams. These provide intuitive ways to find and view technical data sheets for their products.

*"With UL IDES data services, our website now displays the most current information on the products we distribute and links to our backend RFQ and sales order system, adding both value and service for our customers."*

– Kevin Chase, Owner & President, Chase Plastics



### Advertising – [www.ides.com/advertise](http://www.ides.com/advertise)

Reach 365,000 pre-qualified plastics professionals and generate leads with proven techniques. Electronic newsletter insertions, sponsored webinars and powerful online ads are available to make the most of your lead-generation program.

For more information, call: 800.788.4668 or 307.742.9227 ext. 220