

### The Dow Chemical Company - Polyethylene Resin

Wednesday, December 1, 2021

### **General Information**

#### **Product Description**

DOWLEX<sup>TM</sup> 2517 Polyethylene Resin is a narrow molecular weight distribution copolymer designed to offer good ESCR and low temperature properties with excellent flexibility. This resin has good processability over a wide range of molding conditions.

- · Linear Low Density Polyethylene
- · For lids, housewares and containers
- · Excellent low temperature flexibility, good ESCR

#### Complies with:

- U.S. FDA FCN 424
- Canadian HPFB No Objection (With Limitations)
- EU, No 10/2011
- U.S. FDA-DMF
- U.S. USP 23
  - · Consult the regulations for complete details.

General		
Material Status	Commercial: Active	
Regional Availability	Asia Pacific	North America
Additive	Antiblock: No	Processing Aid: No     Slip: No
Agency Ratings	<ul><li>DMF</li><li>EU No 10/2011</li></ul>	<ul> <li>FDA FCN 424</li> <li>HPFB (Canada) No Objection <sup>1</sup></li> <li>USP 23</li> </ul>
Forms	<ul> <li>Pellets</li> </ul>	
Processing Method	<ul> <li>Injection Molding</li> </ul>	

ASTM & ISO Properties <sup>2</sup>									
Physical	Typical Value	(English)	Typical Value	(SI)	Test Method				
Density / Specific Gravity	0.919		0.919		ASTM D792				
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	25	g/10 min	25	g/10 min	ASTM D1238				
Environmental Stress-Cracking Resistance (ESCR)					ASTM D1693				
122°F (50°C), 100% Igepal, F50	4.00	hr	4.00	hr					
Mechanical	Typical Value	(English)	Typical Value	(SI)	Test Method				
Tensile Strength					ASTM D638				
Yield	1400	psi	9.65	MPa					
Break	1300	psi	8.96	MPa					
Tensile Elongation					ASTM D638				
Yield	3.0	%	3.0	%					
Break	600	%	600	%					
Flexural Modulus - 2% Secant	34000	psi	234	MPa	ASTM D790B				
Impact	Typical Value	(English)	Typical Value	(SI)	Test Method				
Tensile Impact Strength <sup>3</sup>	190	ft·lb/in²	399	kJ/m²	ASTM D1822				
Hardness	Typical Value	(English)	Typical Value	(SI)	Test Method				
Durometer Hardness (Shore D)	45		45		ASTM D2240				

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## DOWLEX™ 2517

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Thermal	Typical Value	(English)	Typical Value	(SI)	Test Method
Deflection Temperature Under Load					ASTM D648
66 psi (0.45 MPa), Unannealed	103	°F	39.4	°C	
Brittleness Temperature	< -105	°F	< -76.1	°C	ASTM D746
Vicat Softening Temperature	197	°F	91.7	°C	ASTM D1525
Melting Temperature (DSC)	255	°F	124	°C	Internal Method
Peak Crystallization Temperature (DSC)	218	°F	103	°C	Internal Method

Plaque molded and tested in accordance with ASTM D4976.

#### **Notes**

<sup>1</sup> With limitations

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<sup>&</sup>lt;sup>2</sup> Typical properties: these are not to be construed as specifications.

<sup>&</sup>lt;sup>3</sup> Type S