



Friday, March 14, 2008

## Delrin® 527UV BK701

DuPont Engineering Polymers - *Acetal (POM) Homopolymer*Unit System: English 

### Actions

Legend ([Open](#))

### General Information

#### Product Description

Delrin® 527UV BK701 is a medium viscosity black acetal homopolymer resin with UV stabilizers developed for automotive interior applications. It has improvements in UV aging characteristics and thermal stability over Delrin® 507.

#### General

Material Status	• Commercial: Active
Availability	• Asia Pacific • Europe • North America
Additive	• UV Stabilizer
Features	• UV Resistance, Good • Viscosity, Medium
Uses	• Parts, Engineering
<a href="#">RoHS Compliance</a>	• Contact Manufacturer
Appearance	• Black
Forms	• Pellets
Processing Method	• Extrusion • Injection Molding
Part Marking Code (ISO 11469)	• >POM<
Resin ID (ISO 1043)	• POM

### ASTM and ISO Properties

Physical	Nominal Value	Unit	Test Method
<a href="#">Density</a>	1.41	g/cm <sup>3</sup>	ISO 1183
<a href="#">Melt Mass-Flow Rate (MFR)</a> (190° C/2.16 kg)	15	g/10 min	ISO 1133
<a href="#">Molding Shrinkage</a> (Flow, 0.157 in)	1.8	%	ISO 294-4
Mechanical	Nominal Value	Unit	Test Method
<a href="#">Tensile Modulus</a> (73 ° F)	464000	psi	ISO 527-1, -2
<a href="#">Tensile Stress</a> (Yield, 73 ° F)	10300	psi	ISO 527-1, -2
<a href="#">Tensile Strain</a> (Yield, 73 ° F)	14	%	ISO 527-1, -2
<a href="#">Tensile Strain</a> (Break, 73 ° F)	35	%	ISO 527-1, -2/50
<a href="#">Nominal Tensile Strain at Break</a> (73 ° F)	23	%	ISO 527-1, -2
<a href="#">Flexural Modulus</a> (73 ° F)	435000	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
<a href="#">Charpy Notched Impact Strength</a>			ISO 179/1eA
(-22 ° F)	3.33	ft • lb/in <sup>2</sup>	
(73 ° F)	4.28	ft • lb/in <sup>2</sup>	
<a href="#">Notched Izod Impact Strength</a> (73 ° F)	3.33	ft • lb/in <sup>2</sup>	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
<a href="#">Heat Deflection Temperature</a> (66 psi, Unannealed)	325	° F	ISO 75B-1, -2
<a href="#">Heat Deflection Temperature</a> (264 psi, Unannealed)	198	° F	ISO 75A-1, -2
<a href="#">Melting Temperature (DSC)</a>	352	° F	ISO 3146
<a href="#">Coefficient of Linear Thermal Expansion, Flow</a>			ISO 11359-1, -2
(23 to 55° C (73 to 130° F))	0.000061	in/in/° F	
(-40 to 23° C (-40 to 73° F))	0.000052	in/in/° F	
(55 to 100° C (130 to 212° F))	0.000078	in/in/° F	
<a href="#">Coefficient of Linear Thermal Expansion, Transverse</a>			ISO 11359-1, -2
(23 to 55° C (73 to 130° F))	0.000061	in/in/° F	
(-40 to 23° C (-40 to 73° F))	0.000054	in/in/° F	
(55 to 100° C (130 to 212° F))	0.000089	in/in/° F	
Flammability	Nominal Value	Unit	Test Method
<a href="#">Flame Rating - UL</a>			UL 94
(0.0331 in)	HB		
(0.0591 in)	HB		
(0.118 in)	HB		
(0.236 in)	HB		
<a href="#">Flammability Classification</a>			IEC 60695-11-10, -20

(0.0331 in)	HB
(0.0591 in)	HB
(0.118 in)	HB
(0.236 in)	HB
<b>UL 746</b>	<b>Nominal Value Unit Test Method</b>
<b>RTI Str</b>	UL 746
(0.0331 in)	122 ° F
(0.0591 in)	122 ° F
(0.118 in)	122 ° F
<b>RTI Imp</b>	UL 746
(0.0331 in)	122 ° F
(0.0591 in)	122 ° F
(0.118 in)	122 ° F
<b>RTI Elec</b>	UL 746
(0.0331 in)	122 ° F
(0.0591 in)	122 ° F
(0.118 in)	122 ° F

**Additional Properties**

The value listed as Melting Temperature, ISO 3146, was tested in accordance with ISO 11357-1/-3.

**Processing Information**


<b>Injection</b>	<b>Nominal Value Unit</b>
Drying Temperature	176 ° F
Drying Time	2.0 to 4.0 hr
Suggested Max Moisture	0.20 %
Processing (Melt) Temp	410 to 428 ° F
Mold Temperature	176 to 212 ° F

**Injection Notes**

Drying Recommended: Not normally required unless moisture content of resin exceeds recommended level  
Drying Time, Dehumidified Dryer: 2-4 hr  
Optimum Melt Temperature: 215 ° C  
Optimum Mold Temperature: 90 ° C

**Notes**

<sup>1</sup> Typical properties: these are not to be construed as specifications.

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