

Product Text

Common features of Delrin® acetal resin include mechanical and physical properties such as high mechanical strength and rigidity, excellent fatigue and impact resistance, as well as resistance to moisture, gasoline, lubricants, solvents and many other neutral chemicals.

Delrin® acetal resins also have excellent dimensional stability and good electrical insulating characteristics. They are naturally resilient, self-lubricating and available in a variety of colours and speciality grades.

The good melt stability of Delrin® acetal resin normally enables the recycling of properly handled production waste. If recycling is not possible, DuPont recommends, as the preferred option, incineration with energy recovery (-17 kJ/g of base polymer) in appropriately equipped installations. For disposal, local regulations have to be observed.

Delrin® acetal resin typically is used in demanding applications in the automotive, domestic appliances, sports, industrial engineering, electronics and consumer goods industries.

Delrin® 100AF is a 20% Teflon® PTFE fiber filled and high viscosity polyacetal homopolymer for injection molding. It has high resistance to abrasion, very low coefficient of friction and is specifically suitable for low wear / low friction applications.

Processing/Physical Characteristics	Test Value	Standard
ASTM Data		
Melt Flow Index	0.5 g/10	ASTM D 1238

	min
--	-----

Density, 73°F **1.53** g/cm³ ASTM D 792

Rheological properties	Value	Unit	Test Standard
------------------------	-------	------	---------------

CAMPUS/ISO Data

Melt flow rate	1.3	cm ³ /10min	ISO 1133
Temperature	190	°C	ISO 1133
Load	2.16	kg	ISO 1133
Molding shrinkage (parallel)	2.1	%	ISO 2577, 294-4
Molding shrinkage (normal)	1.5	%	ISO 2577, 294-4

Mechanical properties	Value	Unit	Test Standard
-----------------------	-------	------	---------------

CAMPUS/ISO Data

Tensile Modulus	2700	MPa	ISO 527-1/-2
Stress at break	53	MPa	ISO 527-1/-2
Strain at break	15	%	ISO 527-1/-2
Charpy impact strength (+23°C)	70	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	5	kJ/179/1eA	ISO

m²

Mechanical Properties	Value	Unit	Test Standard
-----------------------	-------	------	---------------

ASTM Data

Tensile Modulus	2750	MPa	ASTM D 638
-----------------	------	-----	------------

Elongation at Break	19	%	ASTM D 638
---------------------	----	---	------------

Flexural Modulus	2510	MPa	ASTM D 790
------------------	------	-----	------------

Izod Impact notched, 1/8 in	50	kJ/m	ASTM D 256
-----------------------------	----	------	------------

Thermal properties	Value	Unit	Test Standard
--------------------	-------	------	---------------

CAMPUS/ISO Data

Melting temperature (10°C/min)	178	°C	ISO 11357-1/-3
--------------------------------	-----	----	----------------

Temp. of deflection under load (1.80 MPa)	100	°C	ISO 75-1/-2
---	-----	----	-------------

Temp. of deflection under load (0.45 MPa)	165	°C	ISO 75-1/-2
---	-----	----	-------------

Coeff. of linear therm. expansion (parallel)	1.14	10 ⁻⁴ /°C	ISO 11359-1/-2
--	------	----------------------	----------------

Coeff. of linear therm. expansion (normal)	1.14	10 ⁻⁴ /°C	ISO 11359-1/-2
--	------	----------------------	----------------

Burning Behav. at 1.5 mm nom. thickn.	HB		IEC 60695-11-10
---------------------------------------	----	--	-----------------

Thickness tested	1.5	m	IEC 60695-11
------------------	-----	---	--------------

		m -10
UL recognition	UL	- -
Burning Behav. at thickness h	HB	IEC cla60695- ss 11-10
Thickness tested	3.0	IEC m 60695- m 11-10
UL recognition	UL	- -
Oxygen index	23	ISO % 4589-1/- 2

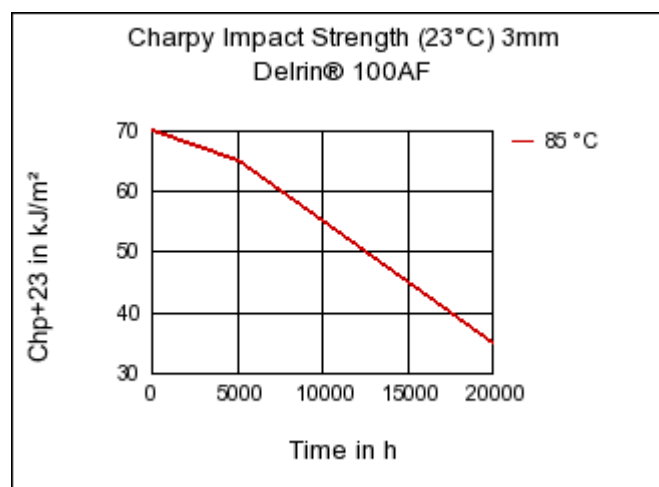
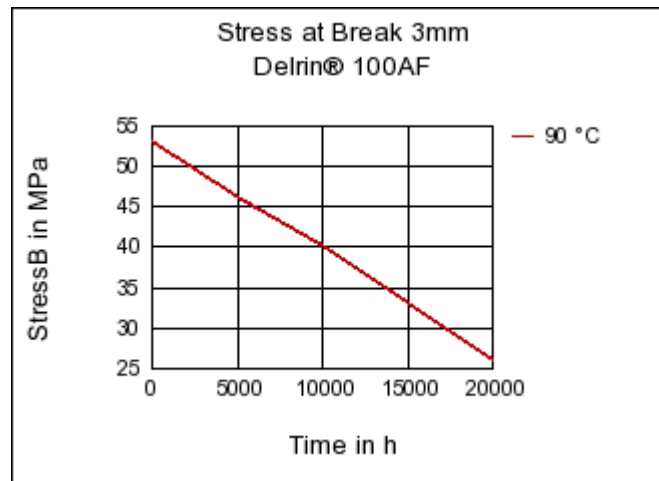
Thermal properties	Value	Unit	Test Standard
ASTM Data			
UL 94 Flame rating	HB	-	UL 94
Thickness tested	1.5	m - m	
Melting Temperature	178	°C	ASTM D 3418

Other properties	Value	Unit	Test Standard
CAMPUS/ISO Data			
Water absorption	1	%	Sim. to ISO 62
Humidity absorption	0.2	%	Sim. to ISO 62
Density	1540	kg/ m ³	ISO 1183

Rheological calculation properties	Value	Unit	Test Standard
CAMPUS/ISO Data			

Density of melt **1300** kg/m^3

Multi-point data



Characteristic

Regional Availability

[North America](#), [Europe](#), [Asia Pacific](#), [South and Central America](#), [Near East/Africa](#), [India](#)

Processing

Injection Molding

Delivery Form

Pellets

Additives

Lubricants, Release agent

Additional Information acc. to PLASPEC Global

Color

Brown

Disclaimer

Copyright M-Base Engineering+Software GmbH, all information is subject to the disclaimer text, which was confirmed when starting the software.