

CAMPUS® foglio dati

Delrin® 511DP NC010 - POM
DuPont Engineering Polymers



Testo del prodotto

Common features of Delrin® acetal resins 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 colors and speciality grades.

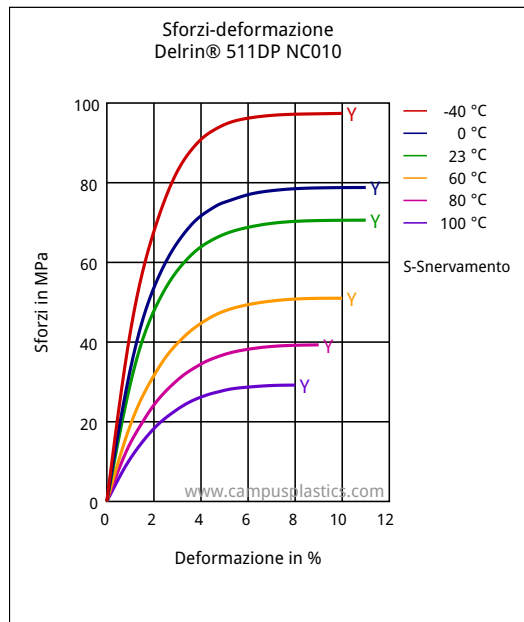
Delrin® acetal resin typically is used in demanding applications in the automotive, domestic appliances, sports, industrial engineering, electronics, and consumer goods industries.

Delrin® 511DP is a medium viscosity acetal homopolymer with enhanced crystallization for faster cycle times and excellent creep and fatigue resistance. It has improved thermal stability, excellent dimensional stability, low warpage and fewer voids.

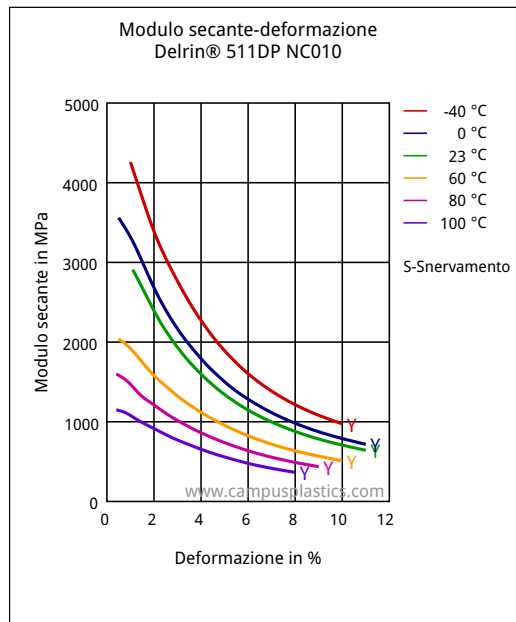
Proprietà Reologiche	Valore	Unità	Norma del test
Indice di fusione di volume, MVR	13	cm ³ /10min	ISO 1133
Temperatura	190	°C	ISO 1133
Carico	2.16	kg	ISO 1133
Ritiro di stampaggio, parallelo	1.9	%	ISO 294-4, 2577
Ritiro di stampaggio, perpendicolare	1.8	%	ISO 294-4, 2577
Proprietà Meccaniche	Valore	Unità	Norma del test
Modulo a trazione	3400	MPa	ISO 527-1/-2
Carico unitario a trazione	75	MPa	ISO 527-1/-2
Deformazione a snervamento	12	%	ISO 527-1/-2
Deformazione nominale a rottura	25	%	ISO 527-1/-2
Resistenza all'urto Charpy, +23°C	220	kJ/m ²	ISO 179/1eU
Resistenza all'urto Charpy, -30°C	200	kJ/m ²	ISO 179/1eU
Resist. urto Charpy con intaglio, +23°C	6.5	kJ/m ²	ISO 179/1eA
Resist. urto Charpy con intaglio, -30°C	6	kJ/m ²	ISO 179/1eA
Proprietà Termiche	Valore	Unità	Norma del test
Temperatura di fusione, 10°C/min	178	°C	ISO 11357-1/-3
Temp.di inflessione sotto carico, 1.80 MPa	107	°C	ISO 75-1/-2
Temp.di inflessione sotto carico, 0.45 MPa	163	°C	ISO 75-1/-2
Temp.di rammollimento Vicat, 50°C/h 50N	160	°C	ISO 306
Coeff.di dilatazione termica lin., parallelo	100	E-6/K	ISO 11359-1/-2
Coeff.di dilatazione termica lin., perpend.	110	E-6/K	ISO 11359-1/-2
Reaz. al fuoco spess.nom. 1.5mm	HB	class	IEC 60695-11-10
Spessore provato	1.5	mm	IEC 60695-11-10
Yellow Card disponibile	Yes	-	-
Reazione al fuoco a spessore h	HB	class	IEC 60695-11-10
Spessore provato	0.8	mm	IEC 60695-11-10
Yellow Card disponibile	Yes	-	-
Velocità di avanzamento fiamma, spessore 1mm	25	mm/min	ISO 3795 (FMVSS 302)
FMVSS	B	-	ISO 3795 (FMVSS 302)
Altre Proprietà	Valore	Unità	Norma del test
Assorbimento d'acqua	0.9	%	Sim. alla ISO 62
Assorbimento d'umidità	0.3	%	Sim. alla ISO 62
Massa volumica	1420	kg/m ³	ISO 1183

Funzioni

Sforzi-deformazione



Modulo secante-deformazione



Caratteristiche

Processabilità e Forma di Forni

Stampaggio ad Iniezione, Estrusione Profilati, Estrusione di Lastre/Fogli, Altre Estrusioni

Forma fisica disponibile

Pellet

Additivi

Lubrificanti, Agente di distacco

Disponibilità geografica

Nord America, Europa, Asia Oceano Pacifico, South and Central America, Near East/Africa

Altre informazioni

Stampaggio ad Iniezione

Drying is recommended, but not necessary for newly opened packaging stored in a dry location.

Follow the drying guidelines above in the following cases:

- If moisture is above the Processing Moisture Content recommendation,
- When a resin container is damaged,
- When the material is not properly stored in a dry place at room temperature, or
- When packaging stays open for a significant time.



Resistenza chimica

Acidi




- 😊 Acido acetico (5% da massa) (23°C)
- 🚫 Soluzione acida citrica (10% da massa) (23°C)
- 🚫 Acido lattico (10% da massa) (23°C)
- 🚫 Acido cloridrico (36% da massa) (23°C)
- 🚫 Acido nitrico (40% da massa) (23°C)
- 🚫 Acido solforico (38% da massa) (23°C)

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-  Acido solforico (5% da massa) (23°C)
-  Soluzione acida cromica (40% da massa) (23°C)




Basi

-  Soluzione dell' idrossido del sodio (35% da massa) (23°C)
-  Soluzione dell' idrossido del sodio (1% da massa) (23°C)
-  Soluzione dell' idrossido di ammonio (10% da massa) (23°C)

Alcool

-  Alcool di isopropile (23°C)
-  Metanolo (23°C)
-  Etanolo (23°C)

Idrocarburi

-  n-Hexane (23°C)
-  Toluene (23°C)
-  isoottano (23°C)





Chetoni

-  Acetone (23°C)









Eteri

-  Etere Etilico (23°C)






Oli minerali

-  Olio multigrade del motore di SAE 10W40 (23°C)
-  Olio multigrade del motore di SAE 10W40 (130°C)
-  Olio dell' ipoide-ingranaggio di SAE 80/90 (130°C)
-  Olio isolante (23°C)



Combustibili Standard

-  Liquido 1 di ISO 1817 (60°C)
-  Liquido 2 di ISO 1817 (60°C)
-  Liquido 3 di ISO 1817 (60°C)
-  Liquido 4 di ISO 1817 (60°C)
-  Combust. stand. senza alcool (pref. ISO 1817 liquido C) (23°C)
-  Combust. stand. con alcool (pref. ISO 1817 liquido 4) (23°C)
-  Combustibile diesel (pref. ISO 1817 liquido F) (23°C)
-  Combustibile diesel (pref. ISO 1817 liquido F) (90°C)
-  Combustibile diesel (pref. ISO 1817 liquido F) (>90°C)

Soluzioni saline








-  Soluzione del cloruro di sodio (10% da massa) (23°C)
-  Soluzione dell' ipoclorito del sodio (10% da massa) (23°C)
-  Soluzione del carbonato di sodio (20% da massa) (23°C)
-  Soluzione del carbonato di sodio (2% da massa) (23°C)
-  Soluzione del cloruro dello zinco (50% da massa) (23°C)

Altri

-  Acetato etilico (23°C)
-  Perossido di idrogeno (23°C)

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-  Liquido di freno del DOT N° 4 (130°C)
-  Glicol etilenico (50% da massa) in acqua (108°C)
-  etanolo di nonylphenoxy-polyethyleneoxy 1% in acqua (23°C)
-  acido oleico 50% + olio di oliva 50% (23°C)
-  Acqua (23°C)
-  Acqua deionizzata (90°C)
-  Soluzione del fenolo (5% da massa) (23°C)

All data provided according to ISO 10350 for single points and ISO 11403 for multipoints.

Contact DuPont for Material Safety Data Sheet, general guides and/or additional information about ventilation, handling, purging, drying, etc.

Test temperatures are 23°C unless otherwise stated.

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