

CAMPUS® foglio dati

Minlon® 73M40 NC010 - PA6-MD40
DuPont Engineering Polymers



Testo del prodotto

Common features of Minlon® nylon resin include mechanical and physical properties such as high mechanical strength, excellent balance of stiffness /toughness, good high temperature performance, good chemical resistance, paintability, dimensional stability and low warpage.

Grades with improved electrical and flammability properties are available within the Zytel® nylon resin product line. In addition, Minlon® nylon resin is available in different modified and reinforced grades to create a wide range of products with tailored properties for specific processes and end-uses.

The good melt stability of Minlon® nylon 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 (-31kJ/g of base polymer) in appropriately equipped installations. For disposal, local regulations have to be observed.

Minlon® nylon resin typically is used in demanding applications in the automotive, electrical, electronic, domestic appliances and construction industries.

Minlon® 73M40 NC010 is a 40% mineral reinforced, heat stabilized polyamide 6 resin for injection molding. It has isotropic properties and low warpage.

Proprietà Reologiche	secco/cond	Unità	Norma del test
Ritiro di stampaggio, parallelo	0.8 / *	%	ISO 294-4, 2577
Ritiro di stampaggio, perpendicolare	0.8 / *	%	ISO 294-4, 2577
Proprietà Meccaniche	secco/cond	Unità	Norma del test
Modulo a trazione	6000 / 2200	MPa	ISO 527-1/-2
Carico unitario a rottura	87 / 59	MPa	ISO 527-1/-2
Deformazione a rottura	10 / 25	%	ISO 527-1/-2
Modulo di scorrimento a trazione, 1h	* / 1400	MPa	ISO 899-1
Modulo di scorrimento a trazione, 1000h	* / 850	MPa	ISO 899-1
Resistenza all'urto Charpy, +23°C	130 / N	kJ/m ²	ISO 179/1eU
Resistenza all'urto Charpy, -30°C	95 / 95	kJ/m ²	ISO 179/1eU
Resist. urto Charpy con intaglio, +23°C	5.5 / 8	kJ/m ²	ISO 179/1eA
Resist. urto Charpy con intaglio, -30°C	4 / 5	kJ/m ²	ISO 179/1eA
Proprietà Termiche	secco/cond	Unità	Norma del test
Temperatura di fusione, 10°C/min	221 / *	°C	ISO 11357-1/-3
Temp.di inflessione sotto carico, 1.80 MPa	110 / *	°C	ISO 75-1/-2
Temp.di inflessione sotto carico, 0.45 MPa	196 / *	°C	ISO 75-1/-2
Temp.di rammollimento Vicat, 50°C/h 50N	210 / *	°C	ISO 306
Coeff.di dilatazione termica lin., parallelo	65 / *	E-6/K	ISO 11359-1/-2
Coeff.di dilatazione termica lin., perpend.	75 / *	E-6/K	ISO 11359-1/-2
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 / *	-	-
FMVSS	SE	-	ISO 3795 (FMVSS 302)
Altre Proprietà	secco/cond	Unità	Norma del test
Assorbimento d'acqua	5.4 / *	%	Sim. alla ISO 62
Assorbimento d'umidità	1.8 / *	%	Sim. alla ISO 62
Massa volumica	1450 / -	kg/m ³	ISO 1183
Proprietà Specifiche Materiale	secco/cond	Unità	Norma del test
Numero di viscosità	145 / *	cm ³ /g	ISO 307, 1157, 1628

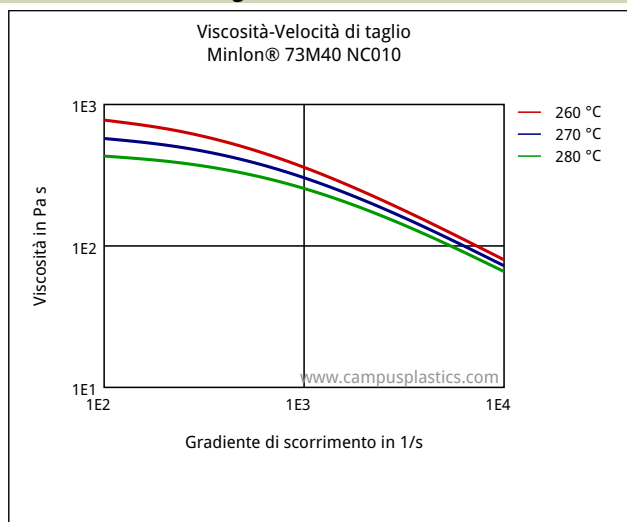
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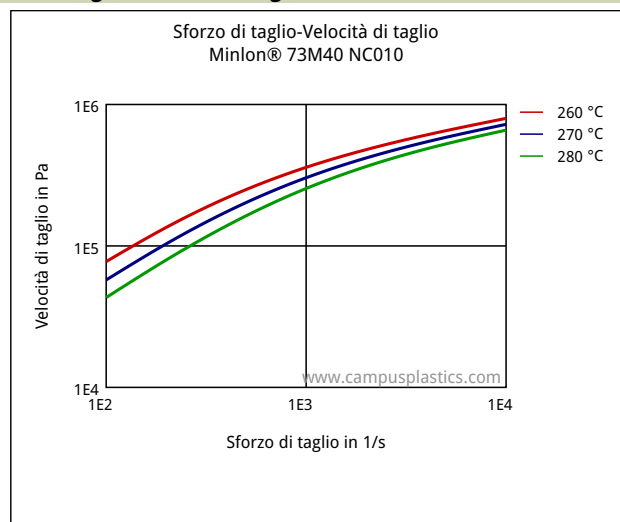
Proprietà reologiche per la simulazione	Valore	Unità	Norma del test
Densità del fuso	1280	kg/m ³	-
Conduktività termica del fuso	0.27	W/(m K)	-
Capacità termica specifica del fuso	1940	J/(kg K)	-
Temperatura di estrazione	210	°C	-

Funzioni

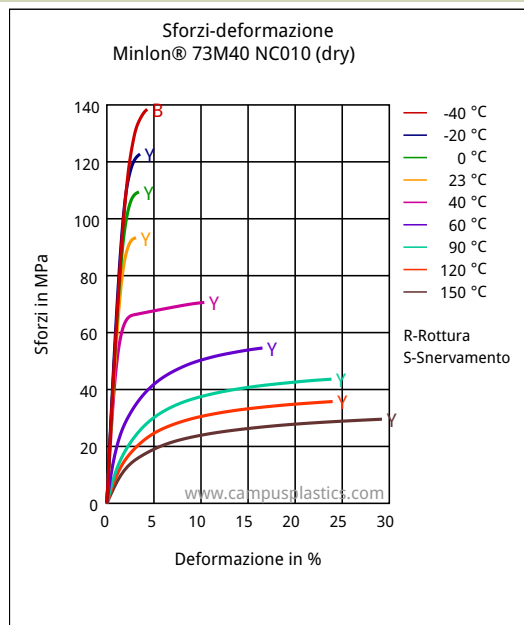
Viscosità-Velocità di taglio



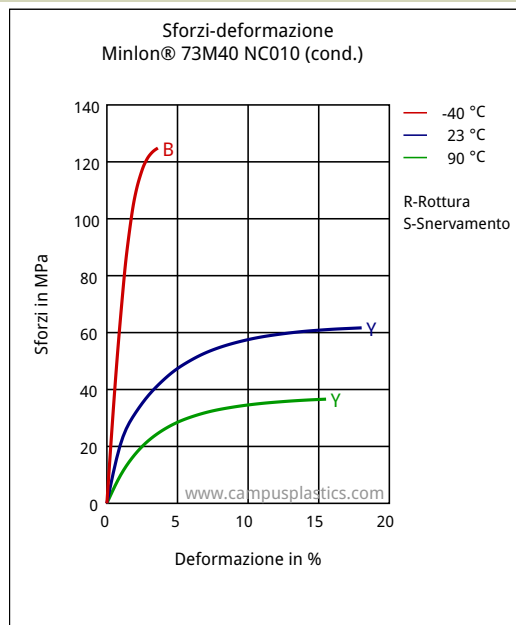
Sforzo di taglio-Velocità di taglio



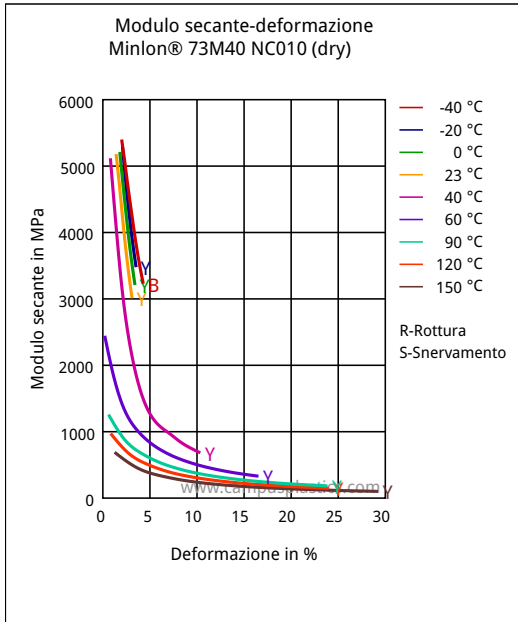
Sforzi-deformazione



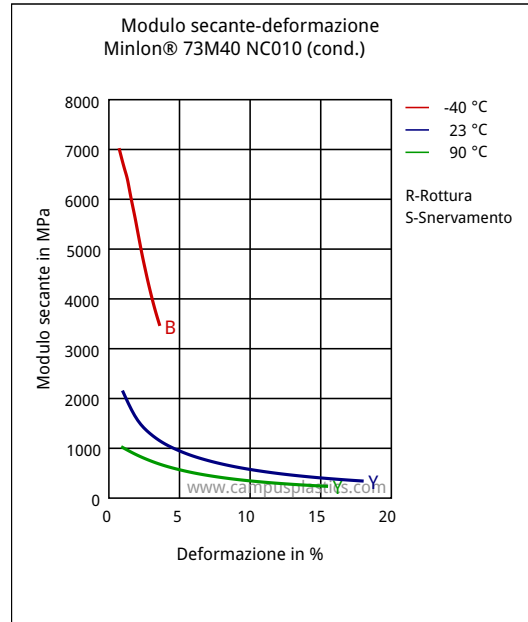
Sforzi-deformazione



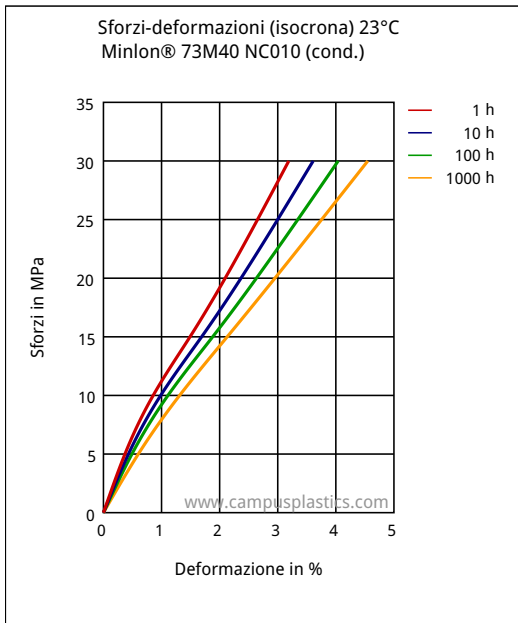
Modulo secante-deformazione



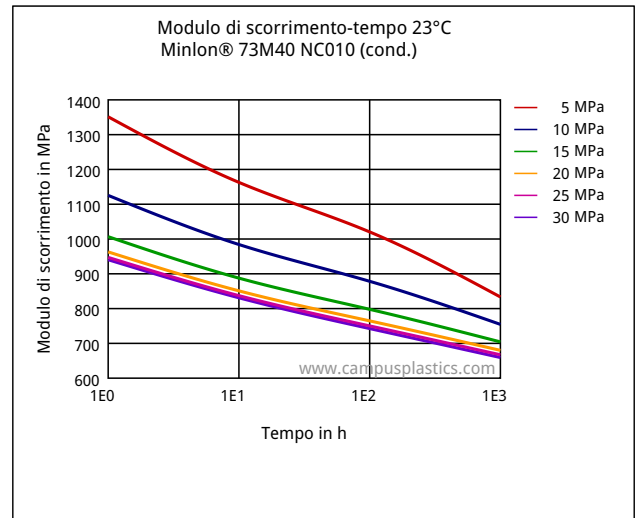
Modulo secante-deformazione



Sforzi-deformazioni (isocrona) 23°C

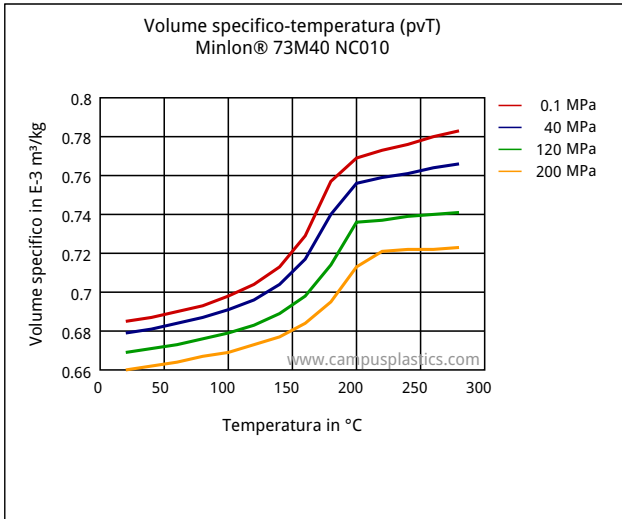


Modulo di scorrimento-tempo 23°C

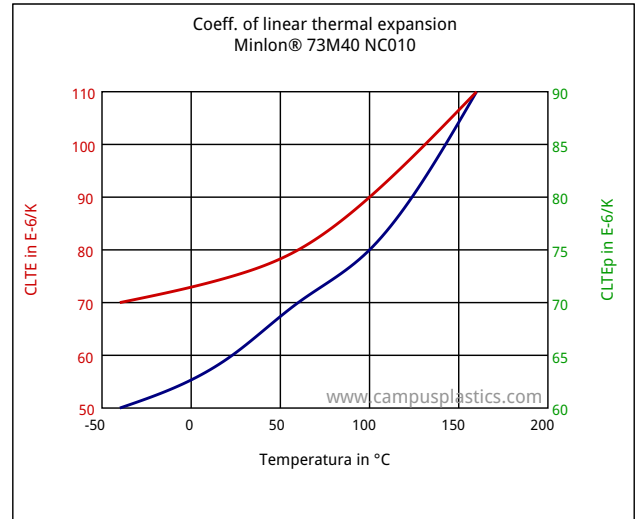


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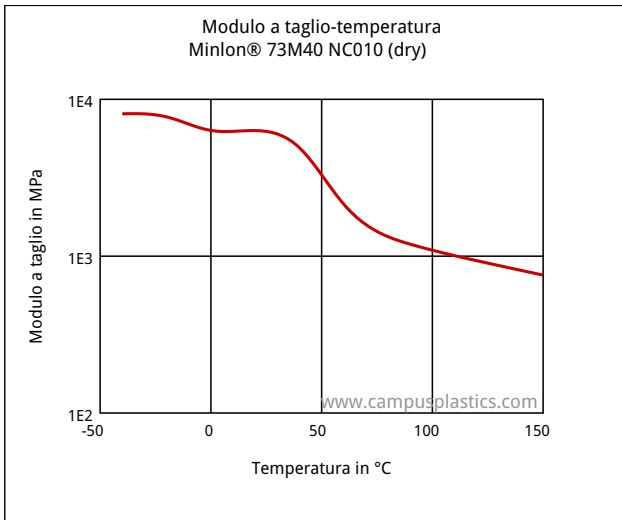
Volume specifico-temperatura (pvT)



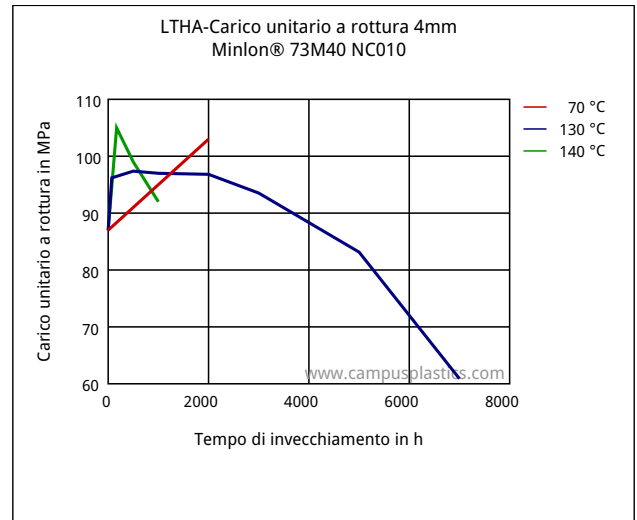
Coeff. of linear thermal expansion



Modulo a taglio-temperatura



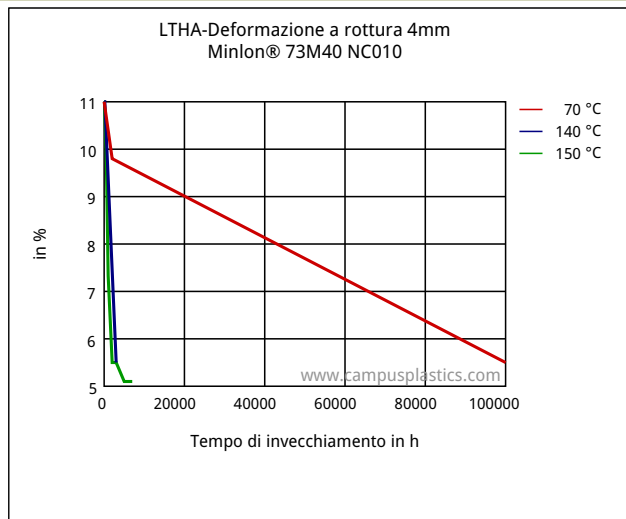
LTHA-Carico unitario a rottura 4mm



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LTHA-Deformazione a rottura 4mm



Caratteristiche

Processabilità e Forma di Forni

Stampaggio ad Iniezione

Forma fisica disponibile

Pellet

Additivi

Agente di distacco

Caratteristiche speciali

Galvanizzabile, Stabilizzato o stabile al calore

Disponibilità geografica

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

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)
- 🚫 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)

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- ☹️ 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)
- ☹️ 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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