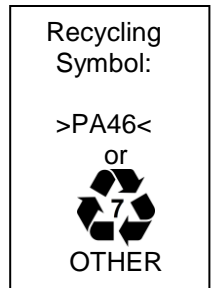


HellermannTyton TYPICAL MATERIAL PROPERTIES	NYLON 46 Heat Stabilized	SPECIFICATION NUMBER MTS1007CSU			
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DESCRIPTION

This material has excellent heat resistance compared to standard Nylon 66. It also exhibits low creep, high stiffness at elevated temperatures, good toughness, good fatigue behavior, excellent resistance to chemicals and molds faster than Nylon 66.

Commercial Name: Nylon 46, Heat Stabilized
Catalog Code: PA46, N46, STNL
Chemical Name: Polyamide 46, Polytetramethylene adipamide
Used On: Cable ties



GENERAL PERFORMANCE CHARACTERISTICS

Heat Stabilized	Excellent
High Impact	Excellent
Moisture Sensitivity	Yes
UV Resistance	Poor

PERFORMANCE ADDITIVES

Glass	None
Mineral	None
Carbon	None
Halogens	None

PROCESS ADDITIVES

Fillers	None
Lubricants	External
Shrink Additives	None

CONDITIONING: Follow cable tie conditioning standard.

CHEMICAL RESISTANCE

Acids	Limited, attacked by strong acids.
Bases	Excellent at room temp.; attacked by strong bases at elevated temperatures.
Solvents	Generally excellent; some absorption causing plasticization and dimensional changes.
Gasoline	Excellent
Oil	Excellent
Salt Water	Excellent for NaCl, attacked by CaCl ₂ (Road Salt).

MAJOR TOXIC ELEMENTS

No significant hazard associated with this material. No toxic elements in base resin.

APPROVALS

Chrysler	MS-DB-476
Ford	WSK-M4D671-A2
GM	GM7001MPA46 (A4,A22,A42,A43,DC1180,F288,G5,K900,MB260,R50,S1145,Z1)

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PROPERTIES CHART

	Dry	Units	Test Method
<u>FLAMMABILITY</u>			
UL Flammability @ 0.75, 1.5 & 3.0mm	V-2	-	UL 94
<u>PHYSICAL</u>			
Density	1.18 (0.043)	g/cm ³ (lb/in ³)	ISO 1183
Water Absorption (Equilibrium, 73°F, 50% RH)	3.7	%	ISO 62
<u>MECHANICAL</u>			
Tensile Strength	100 (14500)	MPa (psi)	ISO 527-2
Tensile Strain @ Break	40	%	ISO 527-2
Tensile Modulus	3303 (479000)	MPa (psi)	ISO 527-2
Flexural Modulus	2999 (435000)	MPa (psi)	ISO 178
Charpy Notched Impact Strength @ -22°F @ 73°F	4.0 (1.9) 10.1 (4.8)	KJ/m ² (ft lb/in ²)	ISO 179/1eA
Notched Izod Impact Strength @ -40°F @ 73°F	4.0 (1.9) 10.1 (4.8)	KJ/m ² (ft lb/in ²)	ISO 180/1A
<u>THERMAL</u>			
Continuous Operating Temp RTI Strength @ 1.5 mm	-40 to 130 (-40 to 266)	°C (°F)	UL 746C
Continuous Use Temp (2,500 hrs) (5,000 hrs) (10,000 hrs) (15,000 hrs) (20,000 hrs)	163 (325) 152 (306) 141 (286) 135 (275) 130 (266)	°C (°F)	IEC 60216/ ISO 527-1/-2
Heat Deflection Temp @ 1.8 MPa (264 psi, Unannealed)	190 (374)	°C (°F)	ISO 75-2/A
CLTE – Flow Transverse	0.000047 0.000061	in/in/°F	ISO 11359-2

This document is intended as a general guide, in the material selection for a product, but does not guarantee satisfactory performance. All materials selected must be thoroughly tested in its intended application to determine its suitability. Consult a HellermannTyton Representative for assistance in the final material selection.

The information contained herein is believed to be accurate at the time of printing. However, this information has been obtained from a variety of sources and has not been independently verified by HellermannTyton Corporation; therefore, we cannot warrant fitness for a particular application. Furthermore, HellermannTyton Corporation reserves the right to make changes to this document, at any time, without notice to our customers.