

<b>HellermannTyton</b> TYPICAL MATERIAL PROPERTIES	NYLON 66 UV STABILIZED 2% CARBON BLACK	<b>SPECIFICATION NUMBER</b> <b>MTS1002CSU</b>		
		Issued By: MEF 10/10/94	REVISION Level:...03 Date:...02/18/14 By...LG ECN#:...012586	Page 1 Of 2

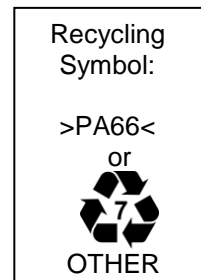
**DESCRIPTION**

This material is UV stabilized nylon 66. It contains finely divided well-dispersed carbon black particles for resistance to ultra-violet (UV) rays. While the presence of carbon black usually increases brittleness, this resin has been formulated to minimize loss of ductal properties such as elongation and Izod Impact Strength. Available in black only.

Commercial Name: ..... Nylon 66, UV stabilized  
Catalog Code: ..... 0UV  
Chemical Name: ..... Polyamide 66  
Used On: ..... Cable ties

**GENERAL PERFORMANCE CHARACTERISTICS**

Heat Stabilized Low  
Impact Low  
Moisture Sensitivity Tensile strength and flexibility will change with change in moisture.  
UV Resistance Excellent



**PERFORMANCE ADDITIVES**

Glass None  
Mineral None  
Carbon 2.1%  
Halogens None

**PROCESS ADDITIVES**

Fillers None  
Lubricants Internal and external  
Shrink Additives None

**CONDITIONING:** Follow standard cable tie conditioning practice.

**CHEMICAL RESISTANCE**


Acids Limited; attacked by strong acids.  
Bases Excellent at room temp.; attacked by strong bases at elevated temps.  
Solvents Generally excellent; some absorption causing plasticization and dimension changes.  
Gasoline Very good  
Oil Good  
Salt Water Very Good  
Sodium Chloride Very Good  
Zinc Chloride Some attack or considerable absorption possible, not suitable for long duration.  
Calcium Chloride Little or no attack, little to some absorption, little to some reduction in mechanical properties.

**MAJOR TOXIC ELEMENTS**

No significant hazard associated with this material.

**APPROVALS** (Check with factory for specific automotive approval if not shown)

Delphi 10949001  
FMVSS302 Pass

 <b>TYPICAL MATERIAL PROPERTIES</b>	<b>NYLON 66 UV STABILIZED 2% CARBON BLACK</b>	<b>SPECIFICATION NUMBER MTS1002CSU</b>		
		<small>Issued By:</small> MEF 10/10/94 <small>Checked By:</small> KAC 02/18/14	<small>REVISION</small> Level:...03 Date:...02/18/14 By...LG ECN#:...012586	<small>Page</small> <b>2</b> <small>Of</small> <b>2</b>

**PROPERTIES CHART**

	Dry	Units	Test Method
<b>FLAMMABILITY</b>			
Flammability – Thickness: (0.75, 1.5 & 3.0 mm)	V-2	-	UL 94
Oxygen index	23	%O <sub>2</sub>	ASTM D2863
<b>PHYSICAL</b>			
Density	1.14 (0.041)	g/cm <sup>3</sup> (lb/in <sup>3</sup> )	ISO 1183
Water Absorption – (73°F, 24hr)	1.2	%	ISO 62
Water Absorption Equilibrium, 73°F, 50% RH	2.4	%	ISO 62
<b>MECHANICAL</b>			
Tensile Strength @ Yield	82.7 (12,000)	MPa (psi)	ISO 527-2
Elongation @ Yield	4.5	%	ISO 527-2
Elongation @ Break	20	%	ISO 527-2
Tensile Modulus	3399 (493,000)	MPa (psi)	ISO 527-2
Flexural Modulus	3103 (450,000)	MPa (psi)	ISO 178
Notched Izod Impact	154.8 (2.9)	J/m (ft lbf/in)	ISO 180
Notched Charpy Impact – @23°C (73°F) @-30°C (-22°F)	154.8 (2.9)	J/m (ft lbf/in)	ISO 179
	122.8 (2.3)		
Unnotched Charpy Impact – @23°C (73°F) @-30°C (-22°F)	1922 (36)	J/m (ft lbf/in)	ISO 179
	2562 (48)		
<b>THERMAL</b>			
Continuous Operating Temp RTI Strength @ 0.75, 1.5 & 3.0 mm	-40 to 85 (-40 to 185)	°C (°F)	UL 746C
RTI Electrical @ 0.75, 1.5 & 3.0 mm	130 (266)	°C (°F)	UL 746C
RTI Impact @ 0.75, 1.5 & 3.0 mm	75 (167)	°C (°F)	UL 746C
Heat Deflection Temp @ 0.455 MPa (66 psi) Unannealed	225 (437)	°C (°F)	ISO 75-2/B
Heat Deflection Temp @ 1.82 MPa (264 psi) Unannealed	70 (158)	°C (°F)	ISO 75-2/A
Melting Temperature (DSC)	260 (500)	°C (°F)	ISO 3146

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.