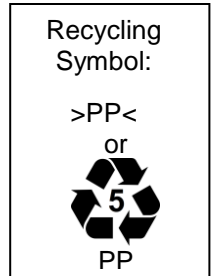


HellermannTyton TYPICAL MATERIAL PROPERTIES	POLYPROPYLENE General Purpose	SPECIFICATION NUMBER MTS1101CSU			
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DESCRIPTION

This material is a general-purpose polypropylene copolymer. It is impact modified. It is also blush (stress whitening) resistant.

Commercial Name: Polypropylene
Catalog Code: PP
Chemical Name: Polypropylene copolymer
Used On: Cable ties, snapper clamps, TAD, and EL-TY spacer.



GENERAL PERFORMANCE CHARACTERISTICS

Heat Stabilized Low
High Impact Moderate to high
Moisture Sensitivity Low
UV Resistance High, with carbon black colorant added, unspecified in natural form

PERFORMANCE ADDITIVES

Glass None
Mineral None
Carbon Only with black colorant added
Halogens None

PROCESS ADDITIVES

Fillers None
Lubricants None
Shrink Additives None

CONDITIONING

None needed. Material is not affected by moisture.

CHEMICAL RESISTANCE

Resistant to most organic solvents, with the exception on very strong oxidizing agents such as fuming nitric acid or sulfuric acid.


Gasoline Good
Oil Good

MAJOR TOXIC ELEMENTS

No significant hazard associated with this material.

APPROVALS (check with factory for specific grade or level)

UL, ASTM, FDA, GM, CHRYSLER

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PROPERTIES CHART

	Dry	Units	Test Method
<u>FLAMMABILITY</u>			
UL Flammability	HB	-	UL 94
<u>PHYSICAL</u>			
Density	0.9 (0.033)	g/cm ³ (lb/in ³)	ASTM D792B
Melt flow rate	22	g/10 min	ASTM D1238
<u>MECHANICAL</u>			
Tensile Strength @ Yield	24 (3480)	MPa (psi)	ASTM D638
Elongation @ Yield	7	%	ASTM D638
Flexural Modulus	1000 (145000)	MPa (psi)	ASTM D790A
Izod Impact Notched	1 (1.87)	J/cm (ft-lb/in)	ASTM D256A
Impact Test	27 (19.9)	J (ft-lb/in)	Montell drop weight impact strength @ -29°C
<u>THERMAL</u>			
Continuous Operating Temp RTI Strength @ 0.94, 1.5 & 3.0 mm	-40 to 115 (-40 to 239)	°C (°F)	UL 746B
Heat Deflection Temp @ 1.8 MPa (264 psi) 0.45 MPa (66 psi)	247 (475)	°C (°F)	ASTM D648

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.