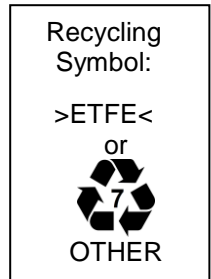


<b>HellermannTyton</b> TYPICAL MATERIAL PROPERTIES	ETFE Injection Molding Grade	<b>SPECIFICATION NUMBER</b> <b>MTS1204CSU</b>			
		Issued By: KAC 05/20/10	REVISION Level:...02 Date:...02/18/14	Page 1 Of 2	
		Checked By: KAC 02/18/14	By...LG ECN#:...012586		

**DESCRIPTION**

ETFE is a copolymer consisting of ethylene and tetrafluoroethylene. This fluoroplastic has excellent electrical, chemical, mechanical, and processing properties. It is well suited for applications requiring high mechanical strength, chemical, thermal, and/or electrical requirements. Designed for thin walled molded product. It has excellent chemical and heat resistance including excellent weatherability capabilities.

Commercial Name: ..... ETFE  
Catalog Code: ..... ETFE  
Chemical Name: ..... Ethylene Tetrafluoroethylene  
Used On: ..... Cable ties



**GENERAL PERFORMANCE CHARACTERISTICS**

Heat Resistance	Very Good
Impact Resistance	Very Good
Moisture Sensitivity	Low
UV Resistance	Excellent
Flame Spread	Very Low
Smoke Generation	Low
High Heat Sterilization Resistance	Very Good

**PERFORMANCE ADDITIVES**

Glass	None
Mineral	None
Carbon	None
Halogens	Fluorine is part of base material No chlorine is used

**PROCESS ADDITIVES**

Fillers	None
Lubricants	None
Shrink Additives	None
Chlorine	None

**CONDITIONING**      None: ETFE absorbs <=0.1% moisture in a 24 hour period

**CHEMICAL RESISTANCE**


Acids	Excellent
Bases	Excellent
Solvents	Excellent
Gasoline	Excellent
Oil	Excellent
Salt Water	Excellent

**MAJOR TOXIC ELEMENTS**

Under normal temperature this material is inert. However, when heated to 300°C to 350°C, it may produce harmful vapors, including toxic gases, such as hydrogen fluoride.

**APPROVALS**

ASTM	D3159
RoHS Compliant	Yes

 <b>TYPICAL MATERIAL PROPERTIES</b>	<b>ETFE</b> Injection Molding Grade	<b>SPECIFICATION NUMBER MTS1204CSU</b>		
		Issued By: KAC 05/20/10	REVISION Level:...02 Date:...02/18/14	Page 2
		Checked By: KAC 02/18/14	By...LG ECN#:...012586	Of 2

**PROPERTIES CHART**

	<b>Dry</b>	<b>Units</b>	<b>Test Method</b>
<b>FLAMMABILITY</b>			
UL Flammability @ 1.5 mm	V-0		UL 94 *Mfg
<b>PHYSICAL</b>			
Specific Gravity	1.72 - 176	- <sup>(1)</sup>	ASTM D3159
Melt Flow Rate	8-16	g/10 min	ASTM D3159
<b>MECHANICAL</b>			
Tensile Strength	42-47 (6092-6817)	MPa (psi)	ASTM D3159
Elongation	420-450	%	ASTM D3159
<b>THERMAL</b>			
Continuous Operating Temp	-80 to 150 (-112 to 302)	°C (°F)	*Mfg
UL RTI Str @1.5 mm (0.059 in)			
Elec	180 (356)	°C (°F)	UL 746
Imp	170 (338)		
Str	180 (356)		
Melting Point (DSC)	260-270 (500-518)	°C (°F)	ASTM D3159

<sup>(1)</sup> Quantity is unit less. Use g/cm<sup>3</sup> to convert to other units.

\* Raw material vendor test results

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.