Sunday, September 20, 2026

MHCompounds Wire & Cable
TPE 5970 LSZH

Units SI

M. Holland Company -
Thermoplastic Elastomer

Action **Legend (Open)**

General Information

Product Description

TPE 5970 LSZH is a natural thermoplastic elastomer (TPE) intended for wire and cable jacketing applications where maximum flame resistance is required. TPE 5970 LSZH has a very low heat release when measured in the cone calorimeter per ASTM E 1354-11b. Smoke k(1/m) measurements are very low when compared to halogen or conventional metal hydrate compounds.

TPE 5970 LSZH contains a novel non-halogen intumescent flame retardant additive package designed to reduce normal flame spread characteristics and achieve a VW-1 flame resistant rating on 18 AWG wires and larger. It also offers good extrusion processing characteristics on either conventional polyethylene or PVC extrusion lines. In addition, TPE 5970 LSZH contains a UV stabilization additive package that provides effective long-term UV weather resistance.

TPE 5970 LSZH is readily pigmented to a variety of colors using standard wire and cable color concentrates designed for thermoplastic or crosslinked polyolefins.

Application
TPE 5970 LSZH is intended for use as a plenum or riser cable jacket. This product is rated a V-0 by UL Standard 94 at a minimum thickness of 0.062 inches. TPE 5970 LSZH is expected to achieve a VW-1 flame resistance on 18 AWG or larger conductors as per UL Standard 1581.

General			
Material Status	• Preliminary Data		
Availability	• North America		
Additive	• Flame Retardant	• UV Stabilizer	
Features	• Flame Retardant • Good Colorability	• Good Flexibility • Halogen Free	• UV Resistant
Uses	• Jacketing	• Wire & Cable Applications	
Agency Ratings	• UL 1277 • UL 1581	• UL 1666 • UL 444	• UL 758, Style 1722 • UL VW-1
Appearance	• Natural Color		
Processing Method	• Extrusion		

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.36	g/cm³	ASTM D792
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Flexural Modulus [2] (0.762 mm)	407	MPa	ASTM D790
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength (0.762 mm)	5.21	MPa	ASTM D412
Tensile Elongation (Break, 0.762 mm)	210	%	ASTM D412
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore A, 15 sec, 0.762 mm)	98		ASTM D2240
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deformation [3] (150°C, 762.0 µm)	6.0	%	UL 2556
Aging	**Nominal Value**	**Unit**	**Test Method**
Retention of Tensile Elongation - 7 days at 158°C (762.0 µm)	100	%	UL 1581
Retention of Tensile Strength - 7 days at 158°C (762.0 µm)	81	%	UL 1581
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating	V-0		UL 94
Oxygen Index	70	%	ASTM D2863

Processing Information

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	188	°C
Cylinder Zone 2 Temp.	196	°C
Cylinder Zone 3 Temp.	199	°C

Cylinder Zone 4 Temp.	199 °C
Melt Temperature	199 °C
Die Temperature	202 °C

Notes

[1] Typical properties: these are not to be construed as specifications.

[2] Chord Modulus (0.5 to 1.0%)

[3] 2000 g

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