Sunday, September 20, 2026

MHCompounds Wire & Cable
TPE 5575R

M. Holland Company -
Thermoplastic Elastomer

Units SI

Action **Legend (Open)**

General Information

Product Description

TPE 5575R is a flexible natural, olefin-based thermoplastic elastomer (TPE) intended for wire and cable insulation and jacketing applications where high temperature performance and excellent flame resistance are required. TPE 5575R complies with "Restriction of Hazardous Substances" Directive, Citation 2002-95-EC, commonly known as RoHS without exemption. TPE 5575R exhibits excellent wet and dry electrical properties and superior chemical resistance. It also provides good resistance to abrasion, impact and crush. TPE 5575R also exhibits superior low temperature properties as demonstrated by it passing cold bend and impact testing at -65°C.

TPE 5575R contains a halogen-based, flame retardant additive package designed to reduce normal PE flame spread characteristics and achieve a VW-1 flame resistant rating on 14 AWG wires and larger. It also offers good extrusion processing characteristics on either conventional polyethylene or PVC extrusion lines. In addition, TPE 5575R contains a UV stabilization additive package that provides effective long-term UV weather resistance.

TPE 5575R is readily pigmented to a variety of colors using standard wire and cable color concentrates designed for thermoplastic or crosslinked polyolefins.

Application
TPE 5575R is intended for 125°C UL rated appliance wire and other flame retardant insulation or jacketing constructions. Specifically, this product is rated a V-0 by UL Standard 94 at a minimum thickness of 0.062 inches. TPE 5575R is capable of achieving a VW-1 flame resistance on 12 AWG or larger conductors as per UL Standard 1581.

General			
Material Status	• Commercial: Active		
Availability	• North America		
Additive	• Flame Retardant	• UV Stabilizer	
Features	• Abrasion Resistant • Chemical Resistant • Flame Retardant	• Good Electrical Properties • Good Flexibility • Good Impact Resistance	• Halogenated • UV Resistant
Uses	• Flame Retardant Insulation • Insulation	• Wire & Cable Applications • Wire Jacketing	
Agency Ratings	• UL 62, Class 1.14 • UL 62, Class 1.18 • UL 62, Class 2.20	• UL 62, Class 2.28 • UL 62, Class 36 • UL 758, Style 1722	• UL VW-1
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color		
Processing Method	• Extrusion		

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.35	g/cm³	ASTM D792
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Flexural Modulus (0.762 mm)	96.6	MPa	ASTM D790
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength (0.762 mm)	13.8	MPa	ASTM D412
Tensile Elongation (Break, 0.762 mm)	1100	%	ASTM D412
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore A, 0.762 mm)	77		ASTM D2240
Thermal	**Nominal Value**	**Unit**	**Test Method**
Brittleness Temperature	-65.0	°C	ASTM D746
Aging	**Nominal Value**	**Unit**	**Test Method**
Retention of Tensile Elongation			UL 1581
7 days at 136°C : 762.0 µm	> 90	%	
7 days at 158°C : 762.0 µm	> 90	%	
Retention of Tensile Strength			UL 1581
7 days at 136°C : 762.0 µm	> 90	%	

7 days at 158°C : 762.0 µm	> 90	%	
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity (1.91 mm)	1.6E+16	ohms·cm	ASTM D257
Dielectric Strength (1.91 mm)	26	kV/mm	ASTM D149
Dielectric Constant (1.91 mm, 60 Hz)	2.40		ASTM D150
Dissipation Factor (1.91 mm, 60 Hz)	2.7E-3		ASTM D150
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating	V-0		UL 94
Oxygen Index	29	%	ASTM D2863

Processing Information

Extrusion	**Nominal Value**	**Unit**
Cylinder Zone 1 Temp.	188	°C
Cylinder Zone 2 Temp.	199	°C
Cylinder Zone 3 Temp.	204	°C
Cylinder Zone 4 Temp.	210	°C
Melt Temperature	210	°C
Die Temperature	210 to 232	°C

Notes

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

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