Sunday, September 20, 2026

MHCompounds Wire & Cable
TPE 5595R

Units SI

M. Holland Company -
Thermoplastic Elastomer

Action **Legend (Open)**

General Information

Product Description

TPE 5595R is a 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 5595R complies with "Restriction of Hazardous Substances" Directive, Citation 2002-95-EC, commonly known as RoHS without exemption. TPE 5595R does not contain decabromodiphenyl oxide. TPE 5595R exhibits excellent wet and dry electrical properties and superior chemical resistance. It also provides good resistance to abrasion, impact and crush. TPE 5595R also exhibits superior low temperature properties as demonstrated by it passing cold bend and impact testing at -50°C.

TPE 5595R 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 5595R contains a UV stabilization additive package that provides effective long-term UV weather resistance.

TPE 5595R is readily pigmented to a variety of colors using standard wire and cable color concentrates designed for thermoplastic or crosslinked polyolefins.

Application
TPE 5595R 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 5595R is capable of achieving a VW-1 flame resistance on 14 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 Impact Resistance • Halogenated	• UV Resistant
Uses	• Cable Jacketing • Flame Retardant Insulation	• Insulation • Wire & Cable Applications	• Wire Jacketing
Agency Ratings	• UL 62 [1]	• UL VW-1	
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color		
Processing Method	• Extrusion		

Properties [2]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.28	g/cm³	ASTM D792
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Flexural Modulus (0.762 mm)	298	MPa	ASTM D790
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength (0.762 mm)	18.3	MPa	ASTM D412
Tensile Elongation (Break, 0.762 mm)	670	%	ASTM D412
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			ASTM D2240
Shore A, 0.762 mm	93		
Shore D, 0.762 mm	41		
Thermal	**Nominal Value**	**Unit**	**Test Method**
Brittleness Temperature	< -45.6	°C	ASTM D746
Aging	**Nominal Value**	**Unit**	**Test Method**
Retention of Tensile Elongation			UL 1581
7 days at 136°C : 762.0 µm	95	%	
7 days at 158°C : 762.0 µm	81	%	
Retention of Tensile Strength			UL 1581
7 days at 136°C : 762.0 µm	100	%	
7 days at 158°C : 762.0 µm	91	%	

Electrical	Nominal Value	Unit	Test Method
Volume Resistivity (1.91 mm)	1.6E+16	ohms·cm	ASTM D257
Dielectric Strength [3] (0.813 mm)	51	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	28	%	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	204	°C
Die Temperature	210 to 232	°C

Notes

[1] Heater Cables HPD & HSJ
Electric Vehicle Cables EVJ, EVJE, EV, EVE, & EVT
Thermoplastic Service Cords

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

[3] 3500 v/s ramp

Corporate Offices:
400 Skokie Boulevard, Suite 600
Northbrook, IL 60062
800.872.7370
In Illinois: 847.272.7370
Customer Service FAX: 847.272.7713

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