Sunday, September 20, 2026

MHCompounds Wire & Cable
TPE 5490

Units SI

M. Holland Company -
Thermoplastic Elastomer

Action **Legend (Open)**

General Information

Product Description

TPE 5490 is a natural, olefin-based thermoplastic elastomer (TPE) intended for wire and cable insulation and jacketing. It is designed to offer excellent low temperature flexibility and deformation resistance. TPE 5490 offers good extrusion processing characteristics on either conventional polyethylene or PVC extrusion lines.

TPE 5490 is readily pigmented to a variety of colors using standard wire and cable color concentrates designed for thermoplastic or crosslinked polyolefins. UV weather resistance is obtainable by the addition of a suitable carbon black or UV additive.

Application
TPE 5490 is intended for pump cable, flexible cord insulation, and fixture applications. It is also suitable for use in 75°C wet locations.

General			
Material Status	• Commercial: Active		
Availability	• North America		
Features	• Low Temperature Flexibility		
Uses	• Cable Jacketing	• Insulation	• Wire & Cable Applications
Agency Ratings	• UL 62, Class 36		
Appearance	• Natural Color		
Processing Method	• Extrusion		

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.890	g/cm³	ASTM D792
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength (0.762 mm)	25.5	MPa	ASTM D412
Tensile Elongation (Break, 0.762 mm)	650	%	ASTM D412
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			ASTM D2240
Shore A, 0.762 mm	88		
Shore A, 15 sec, 0.762 mm	85		
Shore D, 0.762 mm	34		
Thermal	**Nominal Value**	**Unit**	**Test Method**
Brittleness Temperature	< -45.6	°C	ASTM D746
Heat Deformation (150°C, 762.0 µm)	< 30	%	UL 1581
Aging	**Nominal Value**	**Unit**	**Test Method**
Retention of Tensile Elongation - 7 days at 136°C (762.0 µm)	> 85	%	UL 1581
Retention of Tensile Strength - 7 days at 136°C (762.0 µm)	> 85	%	UL 1581
Electrical	**Nominal Value**	**Unit**	**Test Method**
Dielectric Strength (1.91 mm)	26	kV/mm	ASTM D149
Dielectric Constant (1.91 mm, 60 Hz)	2.20		ASTM D150

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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