



# Polyethylene FR4832

Chemically Crosslinkable Polyethylene Compound for Primary Automotive Wires

## Description

**FR4832** is a Chemically Crosslinkable Polyethylene Compound for Primary Automotive Wires.

## Applications

**FR4832** is intended for use as a 125° C rated primary insulation for crosslinked automotive wire.

## Specifications

**FR4832** in combination meets the applicable requirements as below when processed using sound extrusion and testing procedure:

SAE J1128/J1127

## Physical Properties

Property	Typical Value	Test Method
Data should not be used for specification work		
Density (Compound) (23 °C)	1400 kg/m <sup>3</sup>	ASTM D 792
Tensile Strain at Break	200 %	ASTM D 412
Tensile Strength	2,500 psi	ASTM D 412
Tensile Strength	17,25 MPa	ASTM D 412
Retention of Tensile Properties After Ageing (168 h, 165 °C)	>= 80 %	
Brittleness temperature	<= -50 °C	ASTM D 2863
Hardness, Shore D	50	ASTM D 2240

## Electrical Properties

Property	Typical Value	Test Method
Data should not be used for specification work		
Dielectric constant (60 Hz) <sup>1</sup>	3,7	ASTM D 150
DC Volume Resistivity	10 POhm.cm	ASTM D 257
Dielectric Strength	> 550 V/mil	ASTM D 149
Dielectric Strength	> 22 kV/mm	
Dissipation Factor (60 Hz) <sup>1</sup>	0,01	ASTM D 150

<sup>1</sup> 23 °C

## Combustion Properties

Property	Typical Value	Test Method
Data should not be used for specification work		
Limited Oxygen Index	25 %	ASTM D 2863
Flame Test (20 AWG - 16 mil cable)	Pass	ISO 6722/SAE J1128



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## Processing Techniques

Following parameters should be used as guidelines:

Typically the following process conditions are used:

Drying in dehumidified air (2 - 8 h)	55 °C
Barrel 1	96 °C
	205 °F
Barrel 6	110 °C
	230 °F
Max allowed Melt temperature	-120 - 125 °C
	250 - 257 °F

## Packaging

Package: Smallbins

Package: Bulk

## Storage

**FR4832** has a shelf life of 12 months from production date if stored in unopened original packages, under dry and clean conditions at temperatures between 10 - 30 °C (50 - 85 °F).

## Disclaimer

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