



TELDOR... The Best Connection™

Cable Insulating & Jacketing Materials

Defense, Shipboard & Harsh Environments



STR-150™

PTX-150™

HTX-125™





Cable Insulating & Jacketing Materials

Defense, Shipboard & Harsh Environments

STR-150™

PTX-150™

HTX-125™

Teldor STR-150 is a highly flexible, radiation cross-linkable, fluid resistant, flame retardant compound for wire and cable insulation and jacketing for 150°C continuous operating temperature.

The compound offers excellent mechanical and thermal properties as well as high resistance against a wide range of aggressive fluids.

This unique combination of properties makes **Teldor STR-150** the compound of choice for cables used in military vehicles and any other environments requiring exposure to high temperatures, vibrations, diesel fuels, hydraulic fluids, lubricating oils, cleaning, and deicing fluids and more.

Teldor STR-150 is used to produce a wide range of cables for military applications in control, data, test & communications systems.



Teldor STR-150 Main Features

- Withstands temperatures up to 280°C during a short period, without detrimental effect
- Enables improved routing ability and safer cable and wire constructions during overload conditions
- Excellent low temperature flexibility and a continuous operating temperature from – 50°C to +150°C
- Excellent resistance to gasoline, automotive brake-fluid, engine oil, diesel fuel, engine coolant, IRM 902, IRM 903, lubricating oil, hydraulic fluids, grease, de-icing fluids as well as other harmful fluids normally present in engine and motor compartments at elevated temperatures
- Highly flexible

Depending on construction, cables insulated and jacketed with Teldor STR-150 meet the following standards:

- VG95218 parts 24 - 28
- IEC 60332-1
- IEC 60332-3

Major applications of cables insulated and jacketed with Teldor STR-150

- Battle Tanks
- Armored Vehicles
- Battleships
- Locomotives
- Tactical Communications Stations
- Mobile Control Units



Typical Properties			
	Property	Test Method	Typical Value
Mechanical	Specific Gravity	ISO 1183	1.3
	Hardness	DIN 53505	88±2 Shore A
	Tensile Strength	IEC 60811-1-1	>18 Mpa
	Elongation At Break @ 20°C	IEC 60811-1-1	>450%
	Elongation At Break @ -40°C	IEC 60811-1-1	>150%
	Elongation At Break @ -50°C	IEC 60811-1-1	>30%
Electrical	Dielectric Strength	ASTM D2671	20 kV/mm
	Volume Resistivity	ASTM D257	10 ¹³ Ohm·cm
	Dielectric Constant	ASTM D150	4.9
Flame Tests	Limiting Oxygen Index	ASTM D 2863	28%
	Flammability	UL 94	V-0

	Fluid	Temperature	Time	Tensile Strength Retention	Elongation Retention	1 kV Voltage withstand
Fluid Resistance	Diesel fuel	100°C	168 hrs	High (>75%)	High (>75%)	Pass
	Gasoline	20°C	168 hrs	High (>75%)	High (>75%)	Pass
	Brake fluid	100°C	168 hrs	High (>75%)	High (>75%)	Pass
	Engine oil	100°C	168 hrs	High (>75%)	High (>75%)	Pass
	Engine coolant	100°C	168 hrs	High (>75%)	High (>75%)	Pass



Teldor PTX-150 is a highly flexible, halogen-free, flame retardant elastomeric (rubber-like), 125°C compound based on a radiation cross-linked thermoplastic elastomer. Among its special properties are low toxicity and non-dripping behavior when exposed to flame. Other main properties include excellent chemical resistance to aggressive fluids such as diesel fuel, gasoline and other fluids employed in units with internal combustion engines, including lubricating oils and deicing fluids. It has good low-temperature performance, outstanding mechanical properties and excellent weatherability. In addition, the material is inherently resistant to fungi attack.

This unique combination of properties makes **Teldor PTX-150** the compound of choice for jacketing of cables used in automotive, marine and aviation industries, military vehicles and any other environments requiring exposure to both low and high temperatures (-40 to +125°C), vibrations, diesel fuels, hydraulic fluids, lubricating oils, cleaning, and deicing fluids and more. Major applications include cables for control, data, test, and communications systems.



Teldor PTX-150 Main Features

- Halogen-free, flame retardant (HFFR, LS0H, LSZH) material suitable for both indoor and outdoor use
- Excellent chemical and abrasion resistance
- Good low temperature flexibility and a continuous operating temperature from -40°C to +125°C
- Excellent resistance to Diesel Fuel, Gasoline, Break Fluid, Engine Oil & Anti-Freeze Fluid
- Highly flexible

Depending on construction, cables jacketed with Teldor PTX-150 meet the following standards:

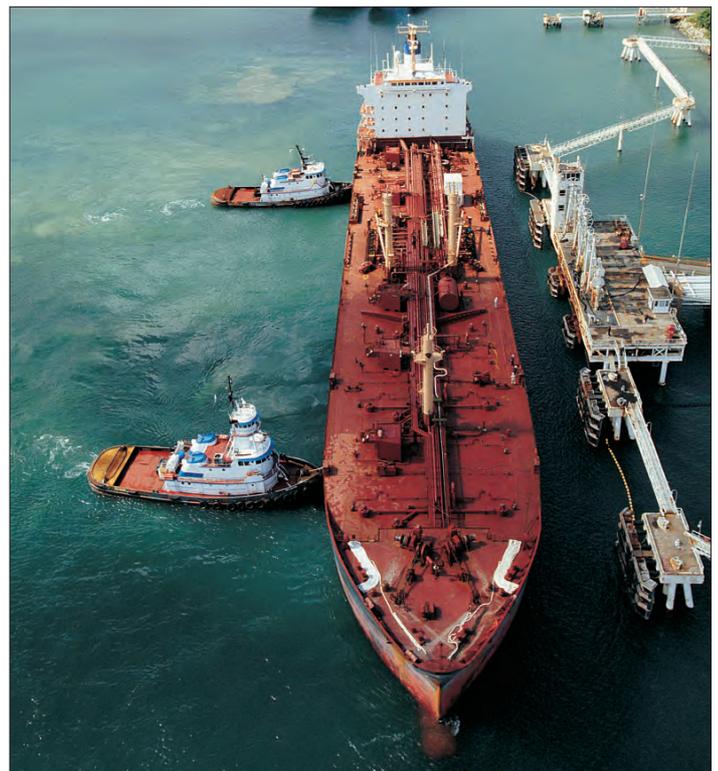
- VG 95218-29
- IEC 60332-1
- IEC 60754-1/2

Major applications of cables jacketed with Teldor PTX-150

- Battle Tanks
- Armored Vehicles
- Battleships
- Communications & Control Units

Typical Properties			
	Property	Test Method	Typical Value
Physical	Specific Gravity	ISO 1183-1	1.14±0.02
	Tensile Strength	IEC 60811-1	>35.0 MPa
	Elongation at break	IEC 60811-1-1	>650%
	Abrasion Resistance	VG 95218/27	Pass
Electrical	Dielectric Constant @ 50-105 Hz	IEC 60093, VDE 0303-3	7.5-8.0
	Volume Resistivity	IEC 60093, VDE 0303-3	10 ¹¹ Ohm·cm
	Dissipation Factor @ 50-105 Hz	IEC 60250, VDE 0303-4	0.03
	Operating Temperature		-40°C to +125°C
	Limiting Oxygen Index (LOI)	ASTM D2863	>27%

	Fluid	Temperature	Time	Tensile Strength Retention	Elongation Retention	1 kV Voltage withstand
Fluid Resistance	Diesel Fuel	100°C	168 hrs	High (>75%)	High (>75%)	Pass
	Gasoline	20°C	168 hrs	High (>75%)	High (>75%)	Pass
	Brake Fluid	100°C	168 hrs	High (>75%)	High (>75%)	Pass
	Engine Oil	100°C	168 hrs	High (>75%)	High (>75%)	Pass
	Engine Coolant	100°C	168 hrs	High (>75%)	High (>75%)	Pass



HTX-125 is a radiation cross-linkable flame-retardant, halogen-free, low-smoke compound, offering outstanding oil-resistance, excellent mechanical properties and superb chemical resistance.

HTX-125 is used as a jacketing material on Teldor multicore cables meeting stringent specifications for shipboard, marine and defense applications.

HTX-125 is useful in low temperatures down to -40°C and is resistant to aggressive fluids such as Naval Diesel Fuel, Jet Fuels, Lubricating Oils, Brake Fluids, Synthetic Hydraulic Fluids, Damping Fluid, Seawater, Greases, and other aggressive solvents.

HTX-125 can be used as a flexible jacketing for various halogen-free and low-halogen insulated conductors in a wide range of cable constructions with excellent properties.

Major applications include cables for control, data, test and communications systems.



Teldor HTX-125 Main Features

- Halogen-free, flame retardant (HFFR), low-smoke & low corrosivity material suitable for both indoor and outdoor use
- Excellent flexibility and abrasion resistance.
- Continuous operating temperature from - 40°C to + 105°C (20,000 hours)
- Withstands temperatures up to 280°C during short-term overloads
- Excellent resistance to fuels, oils, aggressive solvents, ozone and weathering
- Highly resistant to normally used soldering iron techniques
- Highly flexible

Depending on construction, cables jacketed with Teldor HTX-125 meet the following standards:

- VG 95218 parts 24-28
- IEC 60332-1
- IEC 60332-3
- IEC 60754-1/2
- IEC 61034-2

Major applications of cables insulated and jacketed with Teldor HTX-125

- Battle Tanks
- Armored Vehicles
- Battleships
- Communications & Control Units

Typical Properties		
Property	Test Method	Typical Value
Physical Properties		
Specific Gravity	ISO 1183	1.55 ± 0.02
Hardness (Shore)	ASTM-2240	93 A / 40 D
Tensile Strength	EN 60811-1-1	> 11.0 MPa
Elongation at Break	EN 60811-1-1	> 200%
Thermal Properties		
Heat Shock (4 hr, 175°C)	EN 60811-3-1	Pass
- Variation in Tensile Strength		<25%
- Variation in Elongation		<25%
Heat Ageing (120 hrs, 120°C)		
- Variation in Tensile Strength	EN 60811-1-1	<25%
- Variation in Elongation	EN 60811-1-1	<25%
Elongation at Break @ - 40°C		>40%
Low Temp Flexibility @ - 40°C	EN 60811-1-4	No Cracks
Hot-set Elongation (200°C, 15 min, 20 N/cm ²)		
- Under Load		<40%
- Set (5 min @ 200°C)		<10%
Shrinkage Test 1 hr @ 120°C		<2%
Ozone Resistance		
Method A (250 ppm, 25°C, 24 hrs)	EN 50305	No Cracks
Method B (200 ppm, 40°C, 72 hrs)	EN 50305	No Cracks
Fluid Resistance		
IRM 902 Oil Resistance (24 hrs @ 100°C)	VG 95218 T028C	
- Variation in Tensile Strength		<30%
- Variation in Elongation		<40%
- Change of Mass		<5%
IRM 902 Oil Resistance (672 hrs @ 90°C)	VG 95218 T028C	
- Variation in Tensile Strength		<30%
- Variation in Elongation		<40%
- Change of Mass		<5%
Fuel, Naval, Nato code F-75(168 hrs 50°C & 672 hrs 23°C)	VG 95218 T028C	
- Variation in Tensile Strength		<30%
- Variation in Elongation		<40%
- Change of Mass		<10%
- Variation in Tensile Strength	VG 95218 T028C	<30%
- Variation in Elongation		<40%
- Change of Mass (@100°C; @50°C)		<25%; <10%
Electrical Properties		
Volume Resistivity	ASTM D257	>6.91x10 ¹¹ ohm-cm
Flame Properties		
Limiting Oxygen Index (LOI)	ASTM D3682	30%
Halogen Content	IEC 754-1	0
Temperature Index	NES 715	>250°C
Corrosivity test: pH	EN 50267-2-2	>4.5
Conductivity	EN 50267-2-2	<8µS/cm
Toxicity	VG Method 1	<4
Smoke Density - Light Transmission	VG 95218 T028C	>75%
Flammability	UL 94	V-0

TELDOR Cables & Systems Ltd. was established in 1966 at Kibbutz Ein-Dor, in the North of Israel and is a leading manufacturer of wires and cables for telecommunications, electric and electronic applications. Teldor specializes in the design and production of high data-rate Copper and Optical LAN cables, Industrial BUS, Instrumentation and Control cables.

TELDOR is active in the development and production of advanced Electronic, FiberOptic and Data communication cables, as well as Outside Plant Telecom cables.

TELDOR has gained an international reputation for its know-how, fast response, extensive service, custom cable design and outstanding product quality.

TELDOR conducts its copper drawing and stranding operations in an additional plant located at Kibbutz Geshur, and in July 2008 acquired the Telecommunications Division of Synergy Cables, located in Beit She'an.



Marketing & Distribution

TELDOR products are distributed in more than 30 countries around the globe. Teldor's main markets are; Western and Eastern Europe, Russia, North and South America, and the Far East.

TELDOR utilizes the most advanced marketing methods, including its encompassing website at www.teldor.com, containing extensive technical information about data specification sheets for thousands of cable types.

TELDOR personnel lecture and provide training seminars for clients around the world, and are members of international standards committees, forums, and many professional organizations.

Product Range

TELDOR manufactures thousands of different types of wires and cables, and is geared to design and produce a large variety of custom-made products.



www.teldor.com



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