



RAYCHEM

TE Internal #: 4611264003

Black, 2:1, Shrinks To .472 in [12 mm], Chlorinated Polyolefin, Pre-Coated Wrap Jacket Wall Material, .945 in [24 mm] Inner Diameter, Flame-Retardant

[View on TE.com >](#)

Heat Shrink Tubing > ZHTM: Heat Shrink Tubing, 2:1 Shrink Ratio



Primary Product Color: **Black**

Wall Material Type: **Pre-Coated Wrap Jacket**

Expanded Inside Diameter (Min): **24 mm [.945 in]**

Recovered Inside Diameter (Max): **12 mm [.472 in]**

Shrink Ratio: **2:1**

[All ZHTM: Heat Shrink Tubing, 2:1 Shrink Ratio \(9\)](#)

Features

Product Type Features

| | |
|--------------------|------------------------|
| Wall Material Type | Pre-Coated Wrap Jacket |
|--------------------|------------------------|

Body Features

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|--------------------------|--|
| Fluid Type | Brake Fluid, Diesel Fuel, Hydraulic Fluid, Insulating Oil, Lubricating Oil, Unleaded Gasoline, Water |
| Material Systems Code | 100 |
| Primary Product Color | Black |
| Shrink Ratio | 2:1 |
| Primary Product Material | Chlorinated Polyolefin |
| Flexibility | Flexible |

Dimensions

| | |
|------------------------------------|----------------------------|
| Recovered Wall Thickness (Nominal) | 1.1 mm[.043 in] |
| Expanded Inside Diameter (Min) | 24 mm[.945 in] |
| Recovered Inside Diameter (Max) | 12 mm[.472 in] |
| Tubing Size Range | 12 – 24 mm[.472 – .945 in] |

Usage Conditions

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|--------------------------|--------|
| Shrink Temperature (Min) | 121 °C |
|--------------------------|--------|



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|--------------------------|-----------------|
| Tubing Flammability Type | Flame-Retardant |
|--------------------------|-----------------|

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|-----------------------------|--------------|
| Operating Temperature Range | -30 – 105 °C |
|-----------------------------|--------------|

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|----------------------|--------|
| Recovery Temperature | 121 °C |
|----------------------|--------|

Operation/Application

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|-----------------------|-------------------|
| Mechanical Resistance | Mechanical Damage |
|-----------------------|-------------------|

Packaging Features

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|------------------|-------|
| Packaging Method | Piece |
|------------------|-------|

Other

| | |
|-----------------------------------|----|
| Meets Low Outgassing Requirements | No |
|-----------------------------------|----|

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|----------------|----|
| Product Source | US |
|----------------|----|

Product Compliance

[For compliance documentation, visit the product page on TE.com>](#)

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|------------------------------|-----------|
| EU RoHS Directive 2011/65/EU | Compliant |
|------------------------------|-----------|

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|-----------------------------|-----------|
| EU ELV Directive 2000/53/EC | Compliant |
|-----------------------------|-----------|

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|---|---|
| China RoHS 2 Directive MIIT Order No 32, 2016 | No Restricted Materials Above Threshold |
|---|---|

| | |
|--|---|
| EU REACH Regulation (EC) No. 1907/2006 | Current ECHA Candidate List: JUNE 2023 (235) Candidate List Declared Against: JUNE 2023 (235) Does not contain REACH SVHC |
|--|---|

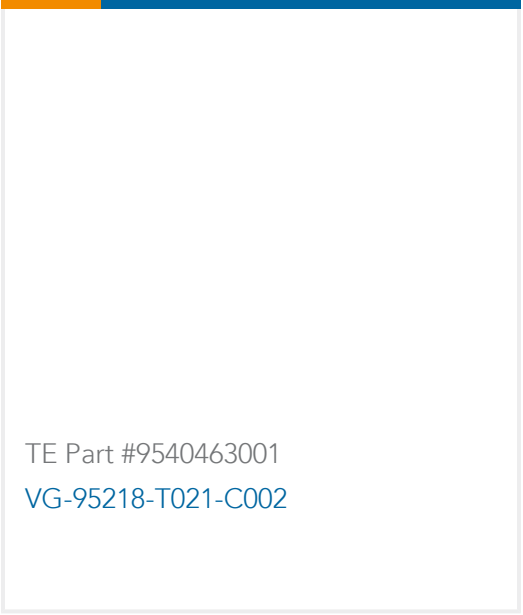
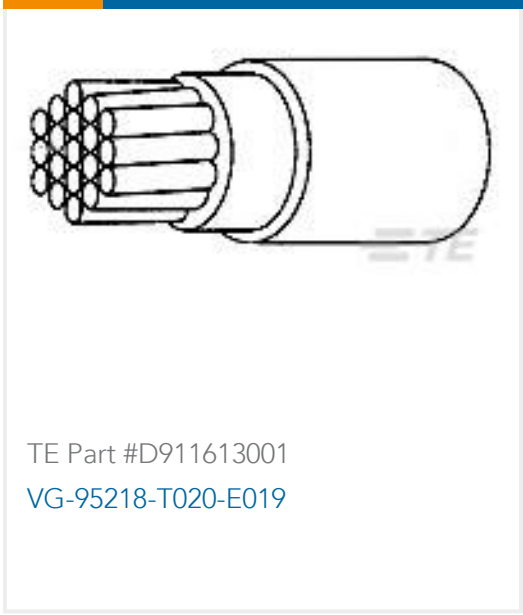
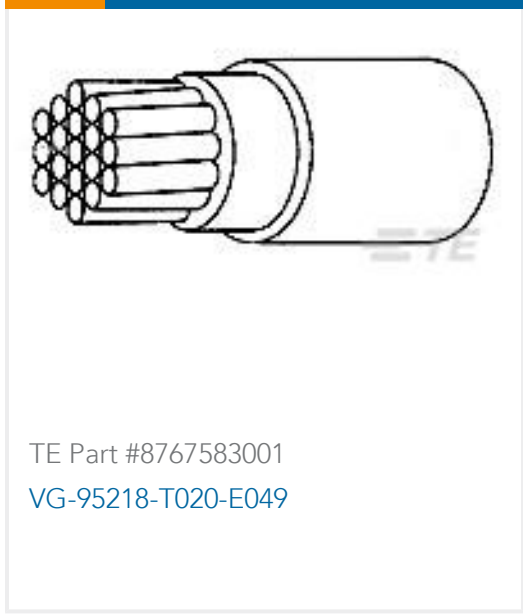
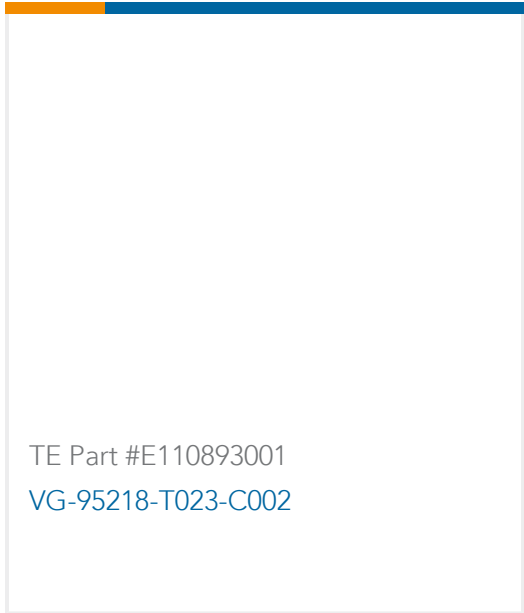
| | |
|-----------------|---|
| Halogen Content | Low Halogen - Br, Cl, F, I < 900 ppm per homogenous material. Also BFR/CFR/PVC Free |
|-----------------|---|

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|---------------------------|--|
| Solder Process Capability | Not applicable for solder process capability |
|---------------------------|--|

Product Compliance Disclaimer

This information is provided based on reasonable inquiry of our suppliers and represents our current actual knowledge based on the information they provided. This information is subject to change. The part numbers that TE has identified as EU RoHS compliant have a maximum concentration of 0.1% by weight in homogenous materials for lead, hexavalent chromium, mercury, PBB, PBDE, DBP, BBP, DEHP, DIBP, and 0.01% for cadmium, or qualify for an exemption to these limits as defined in the Annexes of Directive 2011/65/EU (RoHS2). Finished electrical and electronic equipment products will be CE marked as required by Directive 2011/65/EU. Components may not be CE marked. Additionally, the part numbers that TE has identified as EU ELV compliant have a maximum concentration of 0.1% by weight in homogenous materials for lead, hexavalent chromium, and mercury, and 0.01% for cadmium, or qualify for an exemption to these limits as defined in the Annexes of Directive 2000/53/EC (ELV). Regarding the REACH Regulation, the information TE provides on SVHC in articles for this part number is based on the latest European Chemicals Agency (ECHA) 'Guidance on requirements for substances in articles' posted at this URL: <https://echa.europa.eu/guidance-documents/guidance-on-reach>

Customers Also Bought



Documents

Product Drawings

[ZHTM-24/12-0-SP](#)

English

Datasheets & Catalog Pages

[raychem-tubing-product-selection-guide](#)

English

[1654025_Sec3_ZHTM](#)

English

Product Specifications

[Thermofit Zerohal ZHTM Tubing Elastomeric, Halgen-Free, Flame-Retarded, Flexible, Heat-Shrinkable](#)

English

[ZHTM SLEEVING](#)

English

Product Environmental Compliance

[Safety Datasheet](#)

English



[Safety Datasheet](#)

English

[Safety Datasheet](#)

German

[Safety Datasheet](#)

[Safety Datasheet](#)

French

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[Instruction Sheets](#)

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