



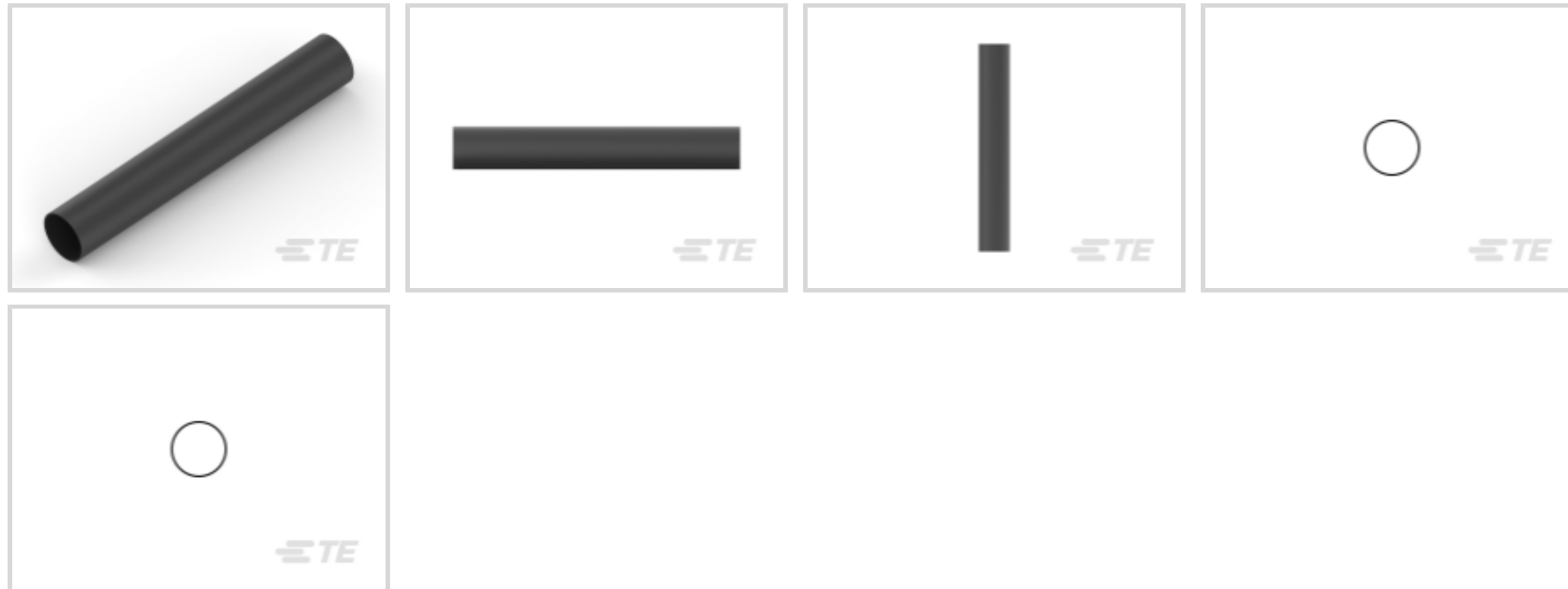
RAYCHEM | RAYCHEM ATUM

TE Internal #: NB09312001

Heat Shrink Tubing, Black, Dual Wall, .472 in [12 mm] Expanded Inside, .157 in [4 mm] Recovered Inside, 3:1 Shrink Ratio, RAYCHEM ATUM

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Heat Shrink Tubing



Primary Product Color: **Black**

Wall Type: **Dual**

Expanded Inside Diameter (Min): **12 mm [ .472 in ]**

Recovered Inside Diameter (Max): **4 mm [ .157 in ]**

Shrink Ratio: **3:1**

**Features**

**Product Type Features**

Product Family	ATUM
Wall Type	Dual

**Electrical Characteristics**

Voltage (Max)	.6 kV
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**Body Features**

Fluid Type	Aviation Fuel, Chemicals/Solvents, De-Icing Fluid, Diesel Fuel, Hydraulic Fluid, Lubricating Oil
Primary Product Color	Black
Shrink Ratio	3:1
Primary Product Material	Irradiated Modified Polyolefin
Flexibility	Semi-Flexible

**Dimensions**

Recovered Wall Thickness (Tolerance)	.38 mm[.015 in]
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Cut Length	1220 mm[48.031 in]
Recovered Wall Thickness (Nominal)	1.78 mm[.07 in]
Expanded Inside Diameter (Min)	12 mm[.472 in]
Recovered Inside Diameter (Max)	4 mm[.157 in]
Heat Shrink Tubing Size Range	4 – 12 mm[.157 – .472 in]

### Usage Conditions

Shrink Temperature (Min)	80 °C
Fluid Resistance	Moisture, Splash Protection, Spray Protection
Heat Shrink Tubing Flammability	Flame-Retardant
Operating Temperature Range	-55 – 110 °C
Heat Shrink Tubing Resistance	Mechanical Damage
Recovery Temperature	110 °C

### Product Availability

Applicable Region	Global
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### Packaging Features

Packaging Method	Bag & Box
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### Other

Meets Low Outgassing Requirements	No
Product Source	Czech Republic

### Product Compliance

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

EU RoHS Directive 2011/65/EU	Compliant
EU ELV Directive 2000/53/EC	Compliant
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 2022 (224) Candidate List Declared Against: JUNE 2022 (224) SVHC > Threshold: DBMC (1.46% in Component Part) <b>Article Safe Usage Statements:</b> Wash thoroughly after handling. Do not handle until all safety precautions have been read and understood. Recycle if possible and dispose of the article by following all applicable governmental regulations relevant to your geographic location.
Halogen Content	Not Low Halogen - contains Br or Cl > 900



ppm.

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>

### Compatible Parts



TE Part # CJ2087-000  
HL2010E-KIT-120V



TE Part # EG1114-000  
CV1981-ST-230V1600W-EU

### Also in the Series | RAYCHEM ATUM



Heat Shrink Tubing(262)

### Documents

**Product Drawings**

[ATUM-12/4-0-STK](#)

English

**Datasheets & Catalog Pages**

[ATUM Pages from 9-1773447-9](#)

English

**Product Specifications**



## Quality Specification

English