

Single Wall NTFR: Heat Shrink Tubing, 1.75:1 Shrink Ratio



[View on TE.com >](#)

Heat Shrink Tubing

NTFR flexible single wall type heat shrink tubing, made of chlorinated polyolefin material and is available in black color with an operating temperature of -70 - 121 DEGC. These have shrink ratio of 1.75:1, used for rugged purpose.



Primary Product Color: **Black**

Wall Type: **Single Wall**

Expanded Inside Diameter (Min): **4.75 mm**

Recovered Inside Diameter (Max): **2.54 mm**

Shrink Ratio: **1.75:1**

Features

Reference Number

TE Internal Number	CAT-R21-T790241
--------------------	-----------------

Product Type Features

Tubing Product Type	Heat Shrink Tubing
Wall Type	Single Wall

Body Features

Fluid Type	Aviation Fuel, Brake Fluid, Chemicals /Solvents, De-Icing Fluid, Diesel Fuel, Hydraulic Fluid, Lubricating Oil, Water
Material Systems Code	20
Primary Product Color	Black
Shrink Ratio	1.75:1
Primary Product Material	Chlorinated Polyolefin
Flexibility	Very Flexible

Dimensions

Recovered Wall Thickness (Tolerance) (mm)	.43, .51, .76, .77, 1.01, 1.02
Recovered Wall Thickness (Tolerance) (in)	.017, .02, .03, .04



Recovered Wall Thickness (Nominal) (mm)	.69, .83, .88, 1.01, 1.21, 1.32, 1.44, 1.65, 1.77, 2.2, 2.41, 2.71, 2.79, 3.18
Recovered Wall Thickness (Nominal) (in)	.027, .033, .035, .04, .048, .052, .057, .065, .07, .087, .095, .107, .11, .125
Recovered Inside Diameter (Max) (mm)	1.55, 2.54, 3.63, 5.45, 7.25, 9.06, 10.88, 12.7, 14.48, 18.13, 21.78, 25.4, 28.96, 43.54
Recovered Inside Diameter (Max) (in)	.061, .1, .143, .214, .286, .357, .428, .5, .57, .714, .857, 1, 1.14, 1.71
Expanded Inside Diameter (Min) (mm)	3.18, 4.75, 6.35, 9.52, 12.7, 15.87, 19.05, 22.22, 25.4, 31.75, 38.1, 44.45, 50.8, 76.2
Expanded Inside Diameter (Min) (in)	.125, .187, .25, .375, .5, .625, .75, .875, 1, 1.25, 1.5, 1.75, 2, 3
Tubing Size Range (mm)	1.55 - 3.18, 2.54 - 4.75, 3.63 - 6.35, 5.45 - 9.52, 7.25 - 12.7, 9.06 - 15.87, 10.88 - 19.05, 12.7 - 22.22, 14.48 - 25.4, 18.1 - 31.8, 21.78 - 38.1, 25.4 - 44.45, 28.96 - 50.8, 43.54 - 76.2
Tubing Size Range (in)	.061 - .125, .1 - .187, .143 - .25, .214 - .375, .286 - .5, .357 - .625, .428 - .75, .5 - .875, .57 - 1, .713 - 1.252, .857 - 1.5, 1 - 1.75, 1.14 - 2, 1.71 - 3

Usage Conditions

Shrink Temperature (Min) (°C)	90
Tubing Flammability Type	Flame-Retardant
Operating Temperature Range (°C)	-70 - 121
Recovery Temperature (°C)	135

Operation/Application

Mechanical Resistance	Abrasion, Fluids, Mechanical Damage, Strain Relief
-----------------------	--

Product Availability

Applicable Region	Worldwide
-------------------	-----------

Packaging Features

Packaging Method	Spool
------------------	-------

Other

Meets Low Outgassing Requirements	No
Product Source	US

SEE PRODUCTS ON NEXT PAGE



Products (1 of 4)



NTFR-3/16-0-SP



NTFR-1-0-SP



NTFR-1/2-0-SP



NTFR-3-0-SP

TE Part #	1208484001	5265954002	0697834002	5147664002
Expanded Inside Diameter (Min)	4.75 mm	25.4 mm	12.7 mm	76.2 mm
Recovered Inside Diameter (Max)	2.54 mm	14.48 mm	7.25 mm	43.54 mm
Tubing Size Range	2.54 - 4.75 mm	14.48 - 25.4 mm	7.25 - 12.7 mm	43.54 - 76.2 mm
Mechanical Resistance	Abrasion, Fluids, Mechanical Damage, Strain Relief	Abrasion, Fluids, Mechanical Damage, Strain Relief	Abrasion, Fluids, Mechanical Damage, Strain Relief	Abrasion, Fluids, Mechanical Damage, Strain Relief
EU RoHS Directive 2011/65 /EU	EU RoHS Compliant	EU RoHS Compliant	EU RoHS Compliant	EU RoHS Compliant
EU ELV Directive 2000/53 /EC	Out of Scope for EU ELV	Out of Scope for EU ELV	Out of Scope for EU ELV	Out of Scope for EU ELV
Product Families	RAYCHEM	RAYCHEM	RAYCHEM	RAYCHEM

*EU RoHS Directive 2011/65/EU

These products comply with the substance restrictions of the Restriction on Hazardous Substances Directive 2011/65/EU (RoHS2). The RoHS2 Directive requires that certain electrical and electronic equipment products do not contain mercury, cadmium, hexavalent chromium, PBB, PBDE, lead, DEHP, BBP, DBP and DIBP above defined thresholds. Products indicated as 'Compliant' do not contain any of these substances above the prohibition thresholds. Finished electrical and electronic equipment products will be CE marked as required by the Directive. Components may not be CE marked.

**EU ELV Directive 2000/53/EC

These products comply with the substance restrictions of the End of Life Vehicles Directive 2000/53/EC (ELV). The ELV Directive requires that materials and components of vehicles do not contain mercury, cadmium, hexavalent chromium, and lead above defined thresholds. Products indicated as 'Compliant' do not contain any of these substances above the prohibition thresholds.



Products (2 of 4)



NTFR-3/8-0-SP



NTFR-3/4-0-SP



NTFR-5/8-0-SP



NTFR-1/4-0-SP

TE Part #	6614114002	4625714002	5165424002	3419254003
Expanded Inside Diameter (Min)	9.52 mm	19.05 mm	15.87 mm	6.35 mm
Recovered Inside Diameter (Max)	5.45 mm	10.88 mm	9.06 mm	3.63 mm
Tubing Size Range	5.45 - 9.52 mm	10.88 - 19.05 mm	9.06 - 15.87 mm	3.63 - 6.35 mm
Mechanical Resistance	Abrasion, Fluids, Mechanical Damage, Strain Relief	Abrasion, Fluids, Mechanical Damage, Strain Relief	Abrasion, Fluids, Mechanical Damage, Strain Relief	Abrasion, Fluids, Mechanical Damage, Strain Relief
EU RoHS Directive 2011/65 /EU	EU RoHS Compliant	EU RoHS Compliant	EU RoHS Compliant	EU RoHS Compliant
EU ELV Directive 2000/53 /EC	Out of Scope for EU ELV	Out of Scope for EU ELV	Out of Scope for EU ELV	Out of Scope for EU ELV
Product Families	RAYCHEM	RAYCHEM	RAYCHEM	RAYCHEM

*EU RoHS Directive 2011/65/EU

These products comply with the substance restrictions of the Restriction on Hazardous Substances Directive 2011/65/EU (RoHS2). The RoHS2 Directive requires that certain electrical and electronic equipment products do not contain mercury, cadmium, hexavalent chromium, PBB, PBDE, lead, DEHP, BBP, DBP and DIBP above defined thresholds. Products indicated as 'Compliant' do not contain any of these substances above the prohibition thresholds. Finished electrical and electronic equipment products will be CE marked as required by the Directive. Components may not be CE marked.

**EU ELV Directive 2000/53/EC

These products comply with the substance restrictions of the End of Life Vehicles Directive 2000/53/EC (ELV). The ELV Directive requires that materials and components of vehicles do not contain mercury, cadmium, hexavalent chromium, and lead above defined thresholds. Products indicated as 'Compliant' do not contain any of these substances above the prohibition thresholds.



Products (3 of 4)



	NTFR-1-3/4-0-SP	NTFR-7/8-0-SP	NTFR-1/8-0-SP	NTFR-1-1/4-0-SP
TE Part #	3215554002	3043434002	5603764002	6229024003
Expanded Inside Diameter (Min)	44.45 mm	22.22 mm	3.18 mm	31.75 mm
Recovered Inside Diameter (Max)	25.4 mm	12.7 mm	1.55 mm	18.13 mm
Tubing Size Range	25.4 - 44.45 mm	12.7 - 22.22 mm	1.55 - 3.18 mm	18.1 - 31.8 mm
Mechanical Resistance	Abrasion, Fluids, Mechanical Damage, Strain Relief	Abrasion, Fluids, Mechanical Damage, Strain Relief	Abrasion, Fluids, Mechanical Damage, Strain Relief	Abrasion, Fluids, Mechanical Damage, Strain Relief
EU RoHS Directive 2011/65 /EU	EU RoHS Compliant	EU RoHS Compliant	EU RoHS Compliant	EU RoHS Compliant
EU ELV Directive 2000/53 /EC	Out of Scope for EU ELV	Out of Scope for EU ELV	Out of Scope for EU ELV	Out of Scope for EU ELV
Product Families	RAYCHEM	RAYCHEM	RAYCHEM	RAYCHEM

***EU RoHS Directive 2011/65/EU**

These products comply with the substance restrictions of the Restriction on Hazardous Substances Directive 2011/65/EU (RoHS2). The RoHS2 Directive requires that certain electrical and electronic equipment products do not contain mercury, cadmium, hexavalent chromium, PBB, PBDE, lead, DEHP, BBP, DBP and DIBP above defined thresholds. Products indicated as 'Compliant' do not contain any of these substances above the prohibition thresholds. Finished electrical and electronic equipment products will be CE marked as required by the Directive. Components may not be CE marked.

****EU ELV Directive 2000/53/EC**

These products comply with the substance restrictions of the End of Life Vehicles Directive 2000/53/EC (ELV). The ELV Directive requires that materials and components of vehicles do not contain mercury, cadmium, hexavalent chromium, and lead above defined thresholds. Products indicated as 'Compliant' do not contain any of these substances above the prohibition thresholds.



Products (4 of 4)



NTFR-2-0-SP



NTFR-1-1/2-0-SP

TE Part #	6032624002	7973394002
Expanded Inside Diameter (Min)	50.8 mm	38.1 mm
Recovered Inside Diameter (Max)	28.96 mm	21.78 mm
Tubing Size Range	28.96 - 50.8 mm	21.78 - 38.1 mm
Mechanical Resistance	Abrasion, Fluids, Mechanical Damage, Strain Relief	Abrasion, Fluids, Mechanical Damage, Strain Relief
EU RoHS Directive 2011/65/EU	EU RoHS Compliant	EU RoHS Compliant
EU ELV Directive 2000/53/EC	Out of Scope for EU ELV	Out of Scope for EU ELV
Product Families	RAYCHEM	RAYCHEM

*EU RoHS Directive 2011/65/EU

These products comply with the substance restrictions of the Restriction on Hazardous Substances Directive 2011/65/EU (RoHS2). The RoHS2 Directive requires that certain electrical and electronic equipment products do not contain mercury, cadmium, hexavalent chromium, PBB, PBDE, lead, DEHP, BBP, DBP and DIBP above defined thresholds. Products indicated as 'Compliant' do not contain any of these substances above the prohibition thresholds. Finished electrical and electronic equipment products will be CE marked as required by the Directive. Components may not be CE marked.

**EU ELV Directive 2000/53/EC

These products comply with the substance restrictions of the End of Life Vehicles Directive 2000/53/EC (ELV). The ELV Directive requires that materials and components of vehicles do not contain mercury, cadmium, hexavalent chromium, and lead above defined thresholds. Products indicated as 'Compliant' do not contain any of these substances above the prohibition thresholds.

