

Introducing
RW-175

Highly flame-resistant, high-temperature, chemical-resistant RW-175 tubing provides tough, semirigid, very-thin-wall insulation and strain relief of multipin connectors, solder joints and other delicate electrical connections and terminations. It is well-suited for applications that require dense packing of components or visual inspection of covered components. It is especially suitable for applications requiring outstanding abrasion and cut-through resistance and superior chemical and solvent resistance. Its high temperature performance meets or exceeds military and industrial standards. RW-175 meets NASA outgassing requirements making it suitable for use in space applications such as satellites.

KEY FEATURES

- 2:1 shrink ratio for all standard sizes
- Tough, semirigid, very-thin-wall insulation
- High flame-resistance, meeting the requirements of AMS-DTL-23053, Test C, with UL and CSA VW-1 flammability rating
- High temperature performance that meets or exceeds military and industrial standards
- Protection from most industrial solvents, fuels, and chemicals
- Available in several “microtubing” sizes for applications requiring recovered I.D.’s as small as .007” (0.178mm)
- Meets NASA outgassing requirements
- Offers improved clarity (clear version) and increased resistance to crazing when compared to previously offered solutions

APPLICATIONS

- Appliances
- Military and commercial aircraft
- Satellites
- Commercial electronics and communication
- Industrial equipment

ELECTRICAL

- Provides excellent electrical insulation
- Not recommended for use as a primary insulator at temperatures exceeding 135°C [275°F]

MECHANICAL

- Tough modified polyvinylidene fluoride material provides outstanding abrasion and cut-through resistance
- Excellent for strain relief when installed on delicate electrical connections and terminations

TEMPERATURE RATING

- Full recovery temperature: 175°C [347°F]
- Operating Temperature range: -55°C to 175°C [-67°F to 347°F]

STANDARDS AND SPECIFICATIONS

- RW-3029/2
- RW-175 Microtubing SCD
- SAE-AMS-DTL-23053/8
- UL 224 VW-1
- CSA C22.2 No. 198.1-98 VW-1

ORDERING INFORMATION

- Color: Clear (-X) (standard); Black (-0) (nonstandard)
- Standard packaging (-STK): 1.2m [4 ft.] lengths
  Optional packaging (-SP): Spool, varying lengths (consult TE for details)
- Ordering description: Specify product name, size, and color; for example, RW-175-3/16-X.

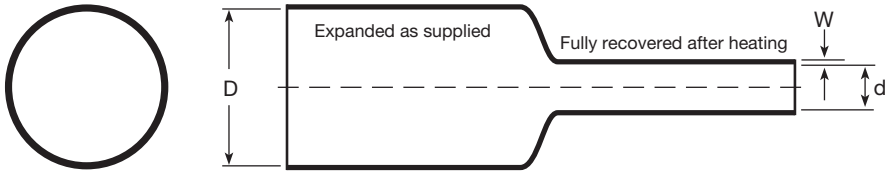
SAMPLES NOW AVAILABLE

te.com/products/RW-175

TE connectivity

USA: 1-800-522-6752
Canada: +1-905-475-6222
Mexico: +52 (0) 55-1106-0800
Latin/S. America: +54 (0) 11-4733-2200
Germany: +49 (0) 6251-133-1999
UK: +44 (0) 800-267666
France: +33 (0) 1-3420-8686
Netherlands: +31 (0) 73-6246-999
China: +86 (0) 400-820-6015

RW-175 DIMENSIONS



Size	Minimum Expanded I.D. (D)		Maximum Recovered I.D. (d)		Nominal Recovered Jacket Wall (W)	
	in.	mm.	in.	mm.	in.	mm.
3/64	.046	1.17	.023	.58	.010 ± .002	.25 ± .051
1/16	.063	1.60	.031	.79	.010 ± .002	.25 ± .051
3/32	.093	2.36	.046	1.17	.010 ± .002	.25 ± .051
1/8	.125	3.18	.062	1.58	.010 ± .002	.25 ± .051
3/16	.187	4.75	.093	2.36	.010 ± .002	.25 ± .051
1/4	.250	6.35	.125	3.18	.013 ± .002	.33 ± .051
3/8	.375	9.53	.187	4.75	.013 ± .002	.33 ± .051
1/2	.500	12.70	.250	6.35	.013 ± .002	.33 ± .051
3/4	.750	19.05	.375	9.53	.017 ± .003	.43 ± .076
1	1.000	25.40	.500	12.70	.019 ± .003	.48 ± .076
1-1/2	1.500	38.10	.750	19.05	.020 ± .003	.51 ± .076
2	2.000	50.80	1.000	25.40	.020 ± .003	.51 ± .076

RW-175 ORDERING DESCRIPTION

Example 1:

RW-175-3/8-X-STK

- STK — 1.2m [4 ft.] Length
- X — Color is Clear
- 3/8 — Size
- RW-175 — Semirigid, Very Thin Wall Product

Example 2:

RW-175-3/4-0-SP

- SP — Spool Packaging
- 0 — Color is Black
- 3/4 — Size
- RW-175 — Semirigid, Very Thin Wall Product

te.com/products/RW-175

USA: 1-800-522-6752
Canada: +1-905-475-6222
Mexico: +52 (0) 55-1106-0800
Latin/S. America: +54 (0) 11-4733-2200
Germany: +49 (0) 6251-133-1999
UK: +44 (0) 800-267666
France: +33 (0) 1-3420-8686
Netherlands: +31 (0) 73-6246-999
China: +86 (0) 400-820-6015

PRODUCT OFFERING

Material Description	Material Number
RW-175-3/64-X-STK	CV3299-000
RW-175-3/64-X-SP	CV3270-000
RW-175-3/64-0-STK	CV3331-000
RW-175-3/64-0-SP	CV3269-000
RW-175-1/16-X-STK	CV3300-000
RW-175-1/16-X-SP	CV3257-000
RW-175-1/16-0-STK	CV3322-000
RW-175-1/16-0-SP	CV3256-000
RW-175-3/32-X-STK	CV3301-000
RW-175-3/32-X-SP	CV3267-000
RW-175-3/32-0-STK	CV3329-000
RW-175-3/32-0-SP	CV3266-000
RW-175-1/8-X-STK	CV3302-000
RW-175-1/8-X-SP	CV3262-000
RW-175-1/8-0-STK	CV3325-000
RW-175-1/8-0-SP	CV3261-000
RW-175-3/16-X-STK	CV3303-000
RW-175-3/16-X-SP	CV3265-000
RW-175-3/16-0-STK	CV3328-000
RW-175-3/16-0-SP	CV3264-000
RW-175-1/4-X-STK	CV3304-000
RW-175-1/4-X-SP	CV3260-000
RW-175-1/4-0-STK	CV3324-000
RW-175-1/4-0-SP	CV3259-000
RW-175-3/8-X-STK	CV3305-000

Material Description	Material Number
RW-175-3/8-X-SP	CV3272-000
RW-175-3/8-0-STK	CV3332-000
RW-175-3/8-0-SP	CV3271-000
RW-175-1/2-X-STK	CV3306-000
RW-175-1/2-X-SP	CV3258-000
RW-175-1/2-0-STK	CV3323-000
RW-175-3/4-X-STK	CV3307-000
RW-175-3/4-X-SP	CV3268-000
RW-175-3/4-0-STK	CV3330-000
RW-175-1-X-STK	CV3308-000
RW-175-1-X-SP	CV3263-000
RW-175-1-0-STK	CV3326-000
RW-175-1-1/2-X-STK	CV3309-000
RW-175-1-1/2-0-STK	CV3327-000
RW-175-2-X-STK	CV3310-000
RW-175-030-X-SP†	CV3281-000
RW-175-NO.1-X-SP†	CV3293-000
RW-175-NO.2-X-SP†	CV3294-000
RW-175-NO.13-X-SP†	CV3291-000
RW-175-NO.14-X-SP†	CV3292-000
RW-175-NO.33-X-SP†	CV3296-000
RW-175-NO.33-0-SP†	CV3295-000
RW-175-NO.65-X-SP†	CV3298-000
RW-175-NO.65-0-SP†	CV3297-000

† RW-175 microtubing is available in 0.014-0.045 in. (.356-1.143 mm) dia. Consult TE for complete details.

SAMPLE INVENTORY

RW-175-3/64-X-STK
RW-175-1/16-X-STK
RW-175-3/32-X-STK
RW-175-1/8-X-STK
RW-175-3/16-X-STK
RW-175-1/4-X-STK
RW-175-3/8-X-STK
RW-175-1/2-X-STK
RW-175-3/4-X-STK
RW-175-1-X-STK
RW-175-1-1/2-X-STK
RW-175-NO.1-X-SP
RW-175-NO.33-X-SP

te.com/products/RW-175

USA: 1-800-522-6752
Canada: +1-905-475-6222
Mexico: +52 (0) 55-1106-0800
Latin/S. America: +54 (0) 11-4733-2200
Germany: +49 (0) 6251-133-1999
UK: +44 (0) 800-267666
France: +33 (0) 1-3420-8686
Netherlands: +31 (0) 73-6246-999
China: +86 (0) 400-820-6015

PROPERTY REQUIREMENTS

Property	Unit	Requirement	Test Method
PHYSICAL			
Dimensions	Inch (mm)	Table 1	RW-3029/2, Section 4.3.1
Longitudinal Change	Percent	+0, -10 maximum	ASTM D 2671
Tensile Strength	psi (MPa)	5000 minimum (34.5)	RW-3029/2, Section 4.3.2
Ultimate Elongation	Percent	150 minimum	ASTM D 2671
Secant Modulus (expanded)	psi (MPa)	1 x 10^5 minimum (690)	ASTM D 2671
Specific Gravity		1.8 maximum	ASTM D 2671
Low Temperature Flexibility 4 hours at -55°C ± 2°C (-67 ±4°F)		No cracking	RW-3029/2, Section 4.3.3
Heat Shock 4 hours at 300 ± 5°C (572 ± 9°F)		No dripping, flowing or cracking	RW-3029/2, Section 4.3.4
Heat Resistance 168 hours at 250 ± 5°C (482 ± 9°F) Followed by test for:			RW-3029/2, Section 4.3.5
Ultimate elongation	Percent	50 minimum	ASTM D 2671
Vacuum Outgasing			ASTM E 595
TML (Total Mass Loss)	Percent	1.0 maximum	
VCM (Volatile Condensible Material)	Percent	0.1 maximum	
ELECTRICAL			
Dielectric Strength	V/mil (kV/mm)		ASTM D 2671
Sizes 3/64 through 12		800 minimum (31,500)	
Sizes 3/4 through 2		600 minimum (2,600)	
Volume Resistivity	Ohm-cm	1 X 10^{13} minimum	ASTM D 2671
CHEMICAL			
Corrosive Effect Copper Mirror 16 hours at 150°C		Noncorrosive	RW-3029/2, Section 4.3.6.1 ASTM D 2671, Proc. A
Copper Contact 168 hours at 175 ± 3°C (347 ± 5°F) Followed by test for:		No pitting or blackening of copper	RW-3029/2, Section 4.3.6.2 ASTM D 2671, Proc. B
Ultimate Elongation	Percent	100 minimum	RW-3029/2, Section 4.3.2
Flammability			ASTM D 2671, Proc. A
Average Time of Burning	Seconds	15 maximum	
Fungus Resistance			ISO 846, Method B
Followed by tests for:			
Tensile Strength	psi (Mpa)	5000 minimum (34.5)	RW-3029/2, Section 4.3.2
Ultimate Elongation	Percent	150 minimum	ASTM D 2671
Dielectric Strength	Volts/mil (volts/mm)		ASTM D 2671
Sizes 3/64 through 1/2		800 minimum (31,500)	
Sizes 3/4 through 2		600 minimum (23,600)	
Water Absorption 24 hours at 23 ± 3°C (73 ± 5°F)	Percent	0.5 maximum	ASTM D 2671
Fluid Resistance 24 hours at 23 ± 3°C (73 ± 5°F) JP-4 Fuel (MIL-T-5624) SKYDROL 500 Hydraulic Fluid (MIL-H-5606) Aviation Gasoline 100/130 (MIL-G-5572) Salt Water (5% salt) Anti-icing Fluid (MIL-A-8243) Lubricating Oil (MIL-L-7808) Followed by tests for:			RW-3029/2, Section 4.3.7
Dielectric Strength	Volts/mil (Volts/mm)		ASTM D 2671
Sizes 3/64 through 1/2		700 minimum (27,600)	
Sizes 3/4 through 2		500 minimum (19,700)	
Tensile Strength	psi (MPa)	5000 minimum (34.5)	RW-3029/2, Section 4.3.2 ASTM D 2671

While TE has made every reasonable effort to ensure the accuracy of the information in this flyer, TE does not guarantee that it is error-free, nor does TE make any other representation, warranty or guarantee that the information is accurate, correct, reliable or current. TE reserves the right to make any adjustments to the information contained herein at any time without notice. TE expressly disclaims all implied warranties regarding the information contained herein, including, but not limited to, any implied warranties of merchantability or fitness for a particular purpose. The dimensions in this flyer are for reference purposes only and are subject to change without notice. Specifications are subject to change without notice. Consult TE for the latest dimensions and design specifications.

te.com/products/RW-175

© 2014 TE Connectivity Ltd. family of companies. All Rights Reserved.
TE Connectivity and the TE connectivity (logo) are trademarks. Other logos, product and/or company names might be trademarks of their respective owners.

USA: 1-800-522-6752
Canada: +1-905-475-6222
Mexico: +52 (0) 55-1106-0800
Latin/S. America: +54 (0) 11-4733-2200
Germany: +49 (0) 6251-133-1999
UK: +44 (0) 800-267666
France: +33 (0) 1-3420-8686
Netherlands: +31 (0) 73-6246-999
China: +86 (0) 400-820-6015

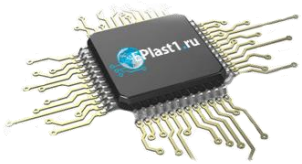
Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)
Факс: 8 (812) 320-02-42
Электронная почта: org@eplast1.ru
Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.