



## RFSM HEAT-SHRINKABLE WRAPAROUND HEAVY WALL FIBRE-REINFORCED WRAPAROUND SYSTEM

### KEY FEATURES

- Wraparound sleeve mainly used for re-jacketing of medium and high voltage joints
- Approved for applications also in pressurized cable networks, as used in High voltage or Telecom
- Fibre-reinforced structure and thick wall design enable superior mechanical strength and impact resistance characteristics
- Halogen-free material content, non-corrosive and non-toxic smoke in event of fire
- Compliant to RoHS and REACH regulations
- Stabilized against UV Irradiation

TE Connectivity's (TE) Raychem RFSM heat-shrinkable heavy-wall wraparound is made of thick wall woven and additionally fibre-reinforced polyolefin material with an adhesive coating. The adhesive included exhibits excellent bonding and sealing characteristics to materials commonly used in the various cable insulation and sheath construction, such as PE, lead and aluminium.

RFSM wraparounds are multi-purpose products designed to provide sealing and environmental protection also for cables in pressurized networks up to nominal pressure of 70 kPa or 10 psi. It is suitable for use on polyethylene, lead, steel and aluminum jacketed cables in underground, direct-buried, and aerial applications.

The material used for RFSM wraparounds is a fibre-reinforced composite laminate. Its outer surface is treated with a temperature-indicating system to facilitate uniform heating during installation. In addition, white lines are painted on the flat side of the rails which become visible through the channel openings as installation is completed. The sleeve has a flap which is designed to seal the longitudinal seam during installation. Both the sleeve and flap are pre-coated with hot-melt adhesive which provides a tenacious bond to the cable under repair.

Raychem wraparound RFSM is fast and easily installed and has proven its long term reliability in harsh environmental conditions.

**Customers can count on consistent, high quality products, driven by TE's proven innovation and backed by our extraordinary customer support.**

## RFSM Heat-Shrinkable Wraparound



### TESTING

| Physical Characteristic                                         | Test Method                                                                                                        | Material Requirements                                                             |
|-----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Burst Strength                                                  | ISO 3303 - A                                                                                                       | 2000 N min.                                                                       |
| Accelerated ageing<br>7 days at 150 °C ± 2 °C<br>Burst Strength | ISO 3303 - A                                                                                                       | 1600 N min.                                                                       |
| Low Temp Flexibility                                            | - 15 °C ± 3 °C                                                                                                     | no sleeves cracking, adhesive lifting or cracking at largest application diameter |
| Dielectric Strength                                             | ASTM D149                                                                                                          | ≥ 10 kV/mm min.                                                                   |
| Water Absorption                                                | ASTM F1249                                                                                                         | ≤ 0.3% max.                                                                       |
| Corrosion                                                       | ASTM D 2671 Part A                                                                                                 | No corrosion after 16h at 150 °C                                                  |
| Weathering                                                      | The material from which CNSM is manufactured contains carbon black (≥ 2,0 %) to protect it from ultra-violet light |                                                                                   |
| Application characteristics                                     |                                                                                                                    |                                                                                   |
| Operating temperature range                                     | - 30 °C up to + 100 °C                                                                                             |                                                                                   |
| Installation/ shrinking temp                                    | > 120 °C                                                                                                           |                                                                                   |
| Shrink ratio                                                    | > 3 : 1                                                                                                            |                                                                                   |
| Longitudinal shrinkage free recovered                           | ≤ 5 %                                                                                                              |                                                                                   |

### Characteristics at a glance

- Cross-linked polyolefin
- Thick wall, Fibre-Reinforced composite material
- Coated with high performance hot melt adhesive
- Color black, outside coated with green thermo-sensitive paint
- Shrinkage ratio 3:1
- Resistant to chemical agents
- Stabilized against UV rays
- Halogen-free, non-corrosive, free of lead and aluminium
- High tensile strength and mechanical robustness

### Applications in

- Cable repair
- Outer jacketing of joints, in low up to high voltage applications
- Protection against moisture and pressure
- Mechanical protection

### PRODUCT SELECTION INFORMATION

| Description        | Application Range |       | Width<br>expanded | Sealing Flap Length |         | Wall Thickness |                |
|--------------------|-------------------|-------|-------------------|---------------------|---------|----------------|----------------|
|                    | from mm           | to mm |                   | min.                | min. ±5 | expanded nom   | recovered min. |
| <b>RFSM 45/15</b>  | 16                | 41    | 160               | 160                 | 30      | 1.5            | 4.5            |
| <b>RFSM 65/20</b>  | 22                | 59    | 225               | 225                 | 30      | 1.5            | 4.5            |
| <b>RFSM 95/30</b>  | 33                | 86    | 325               | 325                 | 30      | 1.5            | 4.5            |
| <b>RFSM 125/40</b> | 44                | 113   | 425               | 425                 | 30      | 1.5            | 4.5            |
| <b>RFSM 165/55</b> | 61                | 149   | 560               | 560                 | 30      | 1.5            | 4.5            |
| <b>RFSM 205/65</b> | 71                | 185   | 700               | 700                 | 30      | 1.5            | 4.5            |

Products are available in the standard lengths 1000 mm or 1500 mm. Other length are available on request.

Raychem wraparound RFSM are available coated with an inner sealant wall. The high performance sealant /123 exhibits excellent bonding and sealing characteristics to all materials commonly used in the various cable insulation and sheath constructions.

### ORDERING INFORMATION

#### RFSM wraparound - coated with hot melt adhesive /123

RFSM-45/15-xxxx/123 - on request

RFSM-65/20-1000/123

RFSM-65/20-1500/123

RFSM-95/30-1000/123

RFSM-95/30-1500/123

RFSM-125/40-1500/123

RFSM-165/55-1500/123

RFSM-205/65-1500/123

Other lengths available.

Please contact your local TE Energy sales representative.

### FOR MORE INFORMATION: TE Technical Support Centers

|                   |                       |
|-------------------|-----------------------|
| USA:              | + 1 800 327 6996      |
| France:           | + 33 380 583 200      |
| UK:               | + 44 0870 870 7500    |
| Germany:          | + 49 896 089 903      |
| Spain:            | + 34 916 630 400      |
| Benelux:          | + 32 16 351 731       |
| Canada:           | + 1 (905) 475-6222    |
| Mexico:           | + 52 (0) 55-1106-0800 |
| Latin/S. America: | + 54 (0) 11-4733-2200 |
| China:            | + 86 (0) 400-820-6015 |

[te.com/energy](http://te.com/energy)

©2014 TE Connectivity Ltd. family of companies. All Rights Reserved. EPP-2257-11/2014

Raychem, TE Connectivity and TE Connectivity (logo) are trademarks. Other logos, product and/or company names might be trademarks of their respective owners. While TE has made every reasonable effort to ensure the accuracy of the information in this brochure, 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 catalog 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.