



Energy Division

CRSM  
Raychem heat-shrinkable  
wraparound system  
for plastic or metal  
sheathed cable repair

 **Tyco Electronics**  
Our commitment. Your advantage.

## CRSM

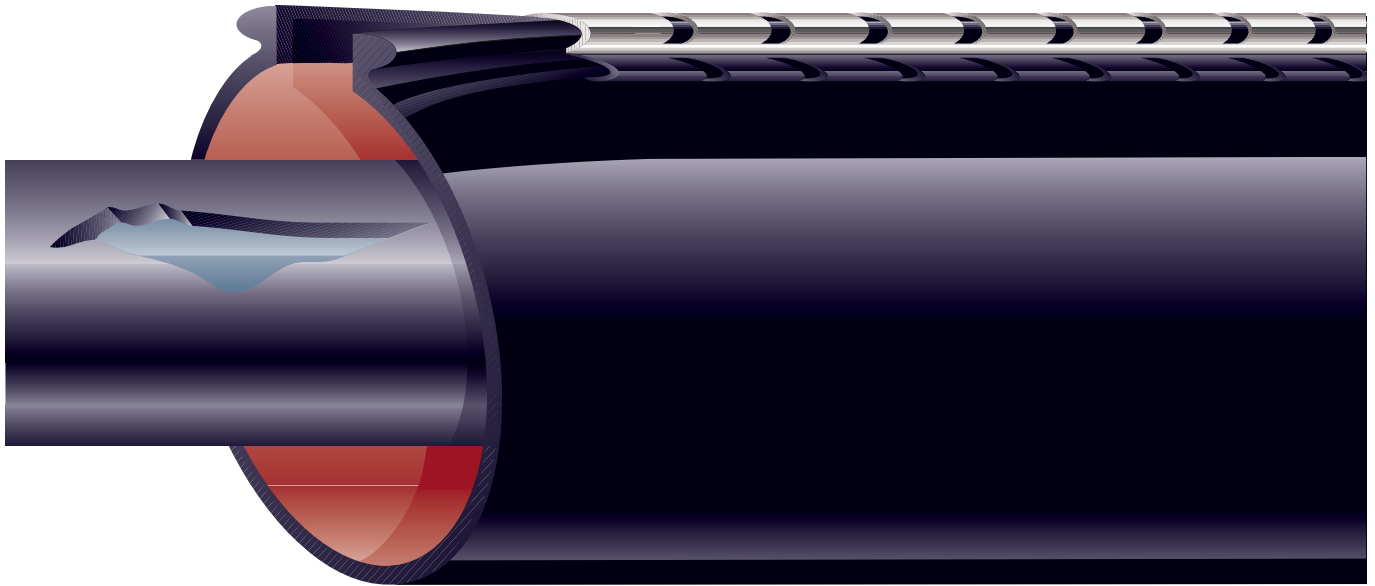
### Raychem heat-shrinkable wraparound system for plastic or metal sheathed cable repair

CRSM wraparounds are a fast and permanent cable repair and sealing system. The repair sleeve is quickly fitted in place by means of its rail and channel closure. A moisture-proof, insulating and tight-fitting repair is then obtained in one step by heating, which makes the sleeve diameter shrink and the sealant coating melt and flow into interstices. Because of its heat-shrinkability, each CRSM size will fit several different cable diameters. The sealant exhibits excellent bonding and sealing characteristics to all materials commonly used in the various cable and sheath constructions, such as plastic, rubber, lead and aluminium. CRSM wraparounds are made of an abrasion and corrosion resistant semi-rigid material, and are one result of our extensive capability in materials technology.

As the world's leading maker of heat-shrinkable materials, we offer a wide range of tubing and moulded parts for any application where a tight, insulating or fluid resistant cover is required over uniform or irregularly shaped objects. These products are available in a wide range of formulations to meet the demands of the growing world of energy.



CRSM wraparounds are used in a railway goods yard in Germany to restore the insulating, sealing and mechanical protection functions of damaged cable oversheaths.



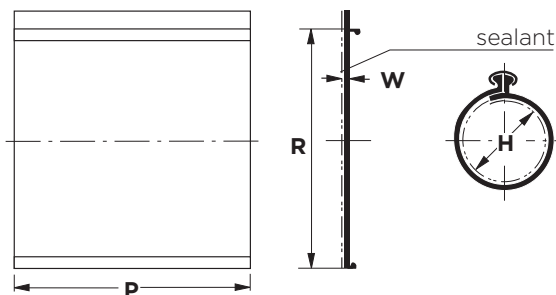
**Labour-saving installation.**  
**Fitting and sealing all in one step.**  
**Abrasion and corrosion resistant.**  
**Each size covers a range of cable sizes.**

Raychem's distinctive closure system, which incorporates a stainless steel channel slid over rails on the sleeve, keeps the wraparound in place during installation but can be easily removed when the adhesive has set.

Material Properties		Test Method	Requirement
<b>Tensile Strength</b>		ISO 37	17 MPa min.
<b>Ultimate Elongation</b>		ISO 37	350% min.
<b>Density</b>		ISO 1183	Method A 1.0 - 1.2 g/cm <sup>3</sup>
<b>Hardness</b>		ISO 868	50 - 70 D
<b>Accelerated Ageing</b>	7 days at 150°C ±2°C	ISO 188	
	Tensile Strength	ISO 37	14 MPa min.
	Ultimate Elongation	ISO 37	300% min.
<b>Thermal Endurance</b>		IEC 60216	120°C
<b>Low Temperature Flexibility</b>	4 hours at -40°C ±3°C	ASTM D2671	Procedure C No cracking
<b>Dielectric Strength</b>		IEC 60243	1 mm 180 kV/cm min. 3.5 mm 120 kV/cm min.
<b>Volume Resistivity</b>		IEC 60093	1 x 10 <sup>12</sup> Ω cm min.
<b>Dielectric Constant</b>		IEC 60250	5 max.
<b>Water Absorption</b>	14 days at 23°C ±2°C	ISO 62	Method 1 0.5% max.
<b>Resistance to Liquids</b>	7 days in transformer oil at 23°C ±2°C (VDE 0370)	ISO 1817	
	Tensile Strength	ISO 37	14 MPa min.
	Ultimate Elongation	ISO 37	300% min.
<b>Resistance to Fungi</b>		ASTM G21	Pass Rating 1
<b>Weathering</b>	The material from which CRSM is manufactured, contains carbon black to protect it from ultra-violet radiation, and is halogen-free.		
<b>Additional Properties</b>	Sealant characteristics are detailed in Raychem specification PPS 3012/70. Further details are given in Raychem specification PPS 3010/9.		

# CRSM Ordering Information

## Dimensions



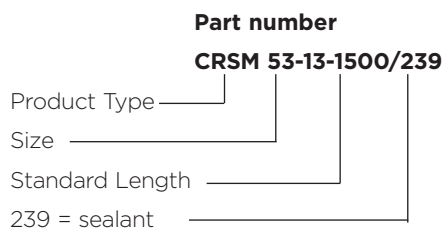
Product/Size	Application Range	H		R		W		P
		a min.	b max.	a min.	b max.	a min.*	b min.	
CRSM 34/10	11-21	35	9	110	35	0.3	2.4	all sizes are available in lengths of 250, 500, 750, 1000 and 1500 mm
CRSM 53/13	17-32	54	15	170	49	0.3	2.0	
CRSM 84/20	24-50	86	21	270	69	0.3	2.0	
CRSM 107/29	31-65	108	27	340	90	0.3	2.0	
CRSM 143/36	33-86	144	28	455	119	0.3	1.8	
CRSM 198/55	56-120	203	50	640	172	0.3	2.1	
CRSM 250/98	103-150	257	91	810	314	0.4	1.7	

## Notes:

1. Dimensions in millimetres  
a = as supplied  
b = after free recovery  
\* = at minimum supplied width

2. Max. longitudinal change after free recovery: - 0 - +10%

## Ordering example



Raychem CRSM wraparounds are supplied complete with detailed installation instructions.

For further details on this product or any other Raychem products please contact your local sales representative.

All of the above information, including drawings, illustrations and graphic designs, reflects our present understanding and is to the best of our knowledge and belief correct and reliable. Users, however, should independently evaluate the suitability of each product for the desired application. Under no circumstances does this constitute an assurance of any particular quality or performance. Such an assurance is only provided in the context of our product specifications or explicit contractual arrangements. Our liability for these products is set forth in our standard terms and conditions of sale. Raychem, TE Logo and Tyco Electronics are trademarks.

**Energy Division – economical solutions for the electrical power industry: cable accessories, connectors & fittings, electrical equipment, instruments, lighting controls, insulators & insulation enhancement and surge arresters.**

Tyco Electronics Raychem GmbH  
Energy Division  
Finsinger Feld 1,  
85521 Ottobrunn/Munich, Germany

Phone: +49-89-6089-0  
Fax: +49-89-6096345

<http://energy.tycoelectronics.com>



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