

## ADDITIONAL TECHNICAL DATA FOR TE's RAYCHEM CRSM HEAT SHRINK WRAPAROUND SLEEVES

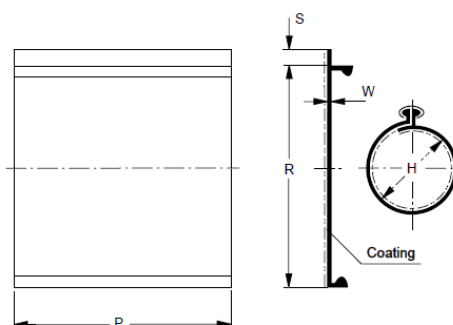
### TYPICAL APPLICATIONS

TE's Raychem CRSM heat shrink wraparound sleeves fit easily onto the cable to repair the outer jacket and seal against moisture. The closure system consists of a raised rail profile and a stainless-steel channel which can be installed without any special tools. The hot-melt sealant provides a reliable environmental seal.

Our CRSM wraparound sleeves are mainly used as insulation, sealing or as re-jacketing material for 1000V power cables, as well as cable jacket repair for Medium Voltage power cables. They may also be used as protection on various substrates, where installation space is tight or difficult to reach.

### DIMENSIONS

Product Size	Diameter		H		R		S	W	
	from min	to max	a min	b max	a min	b max	a min	a min	b min
CRSM 34/10	11	27	34	10	110	35	20	0,3	2,4
CRSM 53/13	15	43	53	13	175	42	20	0,3	2,4
CRSM 84/20	22	68	84	20	270	63	35	0,3	2,4
CRSM 107/29	32	86	107	29	340	82	35	0,3	2,4
CRSM 143/36	40	115	143	36	455	117	35	0,3	2,4
CRSM 198/55	60	160	198	55	640	165	35	0,3	2,4



Dimensions as described above are minimum requirements. Considering the limits of the materials in use or requirements to allow production or to achieve producibility the dimensions can be changed. Details must be defined in manufacturing and quality specifications.

NOTES	
Dimensions in mm	a = as supplied. b = after free recovery
Expansion/shrink ratio	≥ 3:1
Application range ratio	≥ 2,5:1
Max. longitudinal change after free recovery	-10% max
Eccentricity expanded max:	≤ 40%
Eccentricity fully recovered max:	≤ 20%
Cut Length Tolerances	Length ≤ 500 mm Cut length tolerance: ± 5 mm Length > 500 mm Cut length tolerance: ± 15 mm
Printing	Raychem - CRSM - Size ID expanded/ ID recovered - Batch-No.
Packaging	Each CRSM kit contains the CRSM wraparound, appropriate channel(s), clips (if required) and installation instruction, packed in a polybag.
Labelling	Quantity, Description, Batch-No.

## MATERIAL REQUIREMENTS

TECHNICAL FEATURES		
Physical Characteristics	Measuring Unit	Requirements
Hardness (typical value)	Shore-D	≥ 40
Tensile Strength	MPa	≥ 15
Ultimate Elongation	%	≥ 350
Water Absorption (14 d @ 23°C)	%	≤ 0,5
Thermal Characteristics		
Accelerated Heat Aging (7 d @ 150°C)		
Tensile Strength	MPa	≥ 10
Ultimate Elongation	%	≥ 350
Low Temperature Flexibility (4 h @ - 30°C)	-	No break or crack
Thermal endurance test	°C	120
Electrical Characteristics		
Dielectric strength (measured on shrunk product with 2mm wall thickness)	kV/mm	≥ 12
Volume resistivity	Ohm*cm	≥ 1 * 10 <sup>12</sup>
Dielectric constant	-	5 max.
Chemical Characteristics		
Corrosion effect, 16 h at (150 ± 2) °C	-	No corrosion
Resistance to liquids/ transformer oil, acc. to VDE0370 (7 d @ 23 +/- 2 °C)		
Tensile Strength	MPa	≥ 14
Ultimate Elongation	%	≥ 350

## HOT MELT ADHESIVE (/250) REQUIREMENTS

TECHNICAL FEATURES		
Physical/ Electrical Characteristics	Measuring Unit	Requirements
Water Absorption (24 h @ 23°C)	%	≤ 1.0
Dielectric strength (measured on prepared plaque with 2mm wall thickness)	kV/mm	≥ 12
Volume resistivity	Ohm*cm	≥ 1 * 10 <sup>10</sup>
Thermal Characteristics		
Softening Point	°C	95 ± 10
Low Temperature Flexibility (4 h @ - 30°C)	-	No break
Chemical Characteristics		
Corrosion effect 16 h @ (120 ± 2) °C	-	No corrosion
Application Characteristics		
<b>Adhesive Peel Strength (25mm strip min)</b>		
CRSM on substrate PE	N	100
CRSM on substrate PVC	N	60
CRSM on substrate EPR	N	45
CRSM on substrate Al	N	80