



ELECTRICAL  
MECHANICAL  
INSULATION

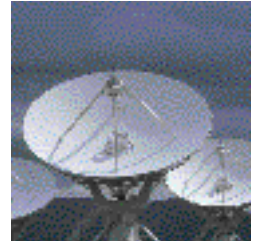
**GANUSA**  
EMI



3:1  
STANDARD  
SHRINK RATIO

Heat Shrinkable  
Cable Repair Sleeve

CRLS



# CRLS

A superior wraparound insulation product that easily installs in repair and splice applications providing excellent insulation and protection for cable jackets

## Features

- Shut down of system not required for repair
- High shrink ratio covers even irregular shapes
- Better split resistance than competitive products
- Simple RAIL-LESS® installation with clamshell design
- Thermoplastic Adhesive Liner provides complete environmental protection and insulation
- Meets ICEA and NEMA insulation thickness specifications
- Continuous operating temperature: -55°C to 110°C
- Shrink temperature: 120°C

® RAIL-LESS is a registered trademark of Shaw Industries

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## Technical Data

### Physical

Property	Test Method	Typical Performance
Tensile Strength	ASTM D638	2700 psi (19 MPa)
Ultimate Elongation	ASTM D638	600%
Heat Shock (4hrs at 225°C)	ASTM D2671	No cracking or flowing
Air Oven Ageing (7 days at 150°C)	ASTM D2671	
Tensile Strength	ASTM D638	2100 psi (14.5 MPa)
Elongation	ASTM D638	540%
Specific Gravity	ASTM D792	0.94
Hardness (Shore D)	ASTM D2240	50 D

### Electrical

Dielectric Strength	ASTM D2671	700 V/Mil (28 kV/mm)
Volume Resistivity	ASTMD257	1.9x10 <sup>18</sup> ohm-cm
Dielectric Constant (1KHZ)	ASTM D150	4.05

### Chemical

Fluid Resistance	MIL-DTL-23053/15	Good to Excellent
Hydraulic Fluid (MIL H5606C)	MIL-DTL-23053/15	
Tensile Strength	ASTM D638, ISO 37	2500 psi (17MPa)
Elongation	ASTM D638, ISO 37	600%
Lubricating Oil (MIL L7808G)	MIL-DTL-23053/15	
Tensile Strength	ASTM D638, ISO 37	2400 psi (16MPa)
Elongation	ASTM D638, ISO 37	600%
Diesel Fuel	MIL-DTL-23053/15	
Tensile Strength	ASTM D638, ISO 37	2100psi (14.5MPa)
Elongation	ASTM D638, ISO 37	600%
Corrosivity	ASTM D2671	Non-Corrosive
Water Absorption	ASTM D570	<0.1%
Fungus Resistance	ASTM G21	No Growth

## CANUSA-EMI

### There's no end to what we cover

CANUSA-EMI is a global company providing electrical and mechanical insulation solutions for a variety of industries and applications. Starting from products created by extensive developmental research at Shaw Industries (incorporated 1955), CANUSA-EMI is a recognized world leader in the provisioning of high quality heat shrink products.

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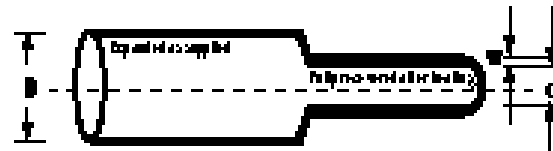
Fax: (416) 743-7199

**WORLDWIDE WEB:** [www.canusa-emi.com](http://www.canusa-emi.com)

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## Dimensions

ORDER REF. NO.	STANDARD WIDTHS	EXPANDED		RECOVERED		WALL THICKNESS (NOM)		600/1000V SINGLE CONDUCTOR SIZE
		INTERNAL DIAMETER (MIN)	INTERNAL DIAMETER (MAX)	INTERNAL DIAMETER (MIN)	INTERNAL DIAMETER (MAX)	mm	IN	
X	AA (BB) CRLS (CRLS)	mm	D	IN	d	IN	w	IN
	1	15, 20, 30, 60, 90 (6, 8, 12, 24, 36)	30	1.2	6	0.24	2	0.8
2	20, 30, 60, 90 (8, 12, 24, 36)	46	1.8	14	0.6	2	0.8	2/0-400
3	20, 30, 60, 90 (8, 12, 24, 36)	68	2.7	24	0.95	2	0.8	400-1000
4	20, 30, 60, 90 (8, 12, 24, 36)	91	3.6	33	1.3	2	0.8	1000-2000
5	20, 30, 60, 90 (8, 12, 24, 36)	126	4.95	47	1.65	2	0.8	Multiple Conductor
6	20, 30, 60, 90 (8, 12, 24, 36)	171	6.75	67	2.5	2	0.8	Multiple Conductor



## Ordering

Refer to table to select the size which will shrink snugly and allow for a minimum of 76 mm (3") length overlap on each end of the area to be covered.

### To Order in Metric Units:

Order Ref. No.      Standard Width  
**CRLS - X - CC - AA - M**  
 Options

### To Order in Imperial Units:

Order Ref. No.      Standard Width  
**CRLS - X - CC - BB - I**

### Standard Colors (CC)

Order Code	Color
BK	BLACK

Standards: Meets insulation thickness specifications of ICEA and NEMA

Note: Non-standard sizes and lengths available subject to factory quotation.