

SUMISEAL

[Watertight crimp connector tube]

Catalog No. 987 ✓ RoHS directive 10 substances

Waterproofing Flame-retarded UL recognized CSA recognized



Basic Properties

- Material: Electron beam cross-linked semi-rigid polyolefin, hot-melt adhesive, and copper crimp barrel
- Shrink temperature : min. 120°C
- Continuous operating temperature : -40 to 105°C

Advantages

- Sumiseal comprises a copper crimp barrel and heat-shrinkable semi-rigid two-layer polyolefin tube. The crimp barrel connects electrical wires when crimped, while the tube insulates the wires. Hot-melt adhesive is coated over the inner wall of the two-layer tube so that the adhesive melts and fills the gap between the crimped barrel and wire when the tube is shrunk. Because of the above feature, Sumiseal can be used to connect electrical wires, and at the same time, protect the wire joint from water, dust, and other undesirable external influences. Moreover, connecting wires using this product makes the wire joint smoother, more compact, and more reliable than conventional tape-based waterproofing processes.

Specifications/Approvals

- SFP standard (RE4-0200)

Applications

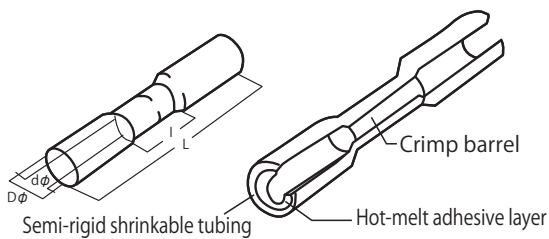
- Protection of wire harnesses in automobiles and wire joints in household electrical appliances, ships, machine tools, and other equipment from water, oil, vibration, and dust

Colors

- Transparent Yellow, Transparent Red, Transparent Blue

Specifications

Product serial number	Performance			
	Material	Rated voltage	Rated current	Rated temperature
SS-2220	Copper sleeve	600V	19A	105°C
SS-1816	Copper	600V	19A	105°C
SS-1414	Semi-rigid shrinkable tubing	600V	27A	105°C
SS-1010	Two-layer shrinkable tubing	600V	49A	105°C

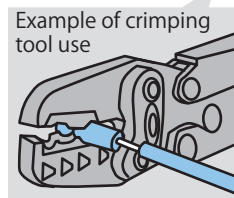
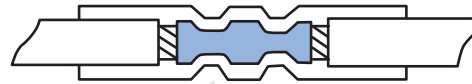


Crimping Process

① Insert electrical wires into sleeve



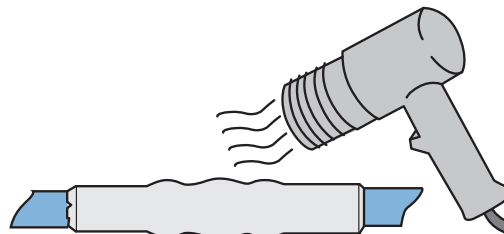
② Crimp



Example of crimping tool use

To ensure that SUMISEAL achieves its full performance, always use the crimping tool specified by Sumitomo Electric.

③ Heat shrink



Heat the outer sleeve with a heat gun or other suitable heater. The adhesive inside the tubing will melt and bind the wires and outer insulation closely together, optimizing the sealing of the finished splice.

Shrinkage temperature: 120°C

Properties

Items	Test method and judgment criteria
Withstand voltage	Apply AC3,400V (60 Hz) between the outer surface of the test specimen (seal) and the electrical wire inside the specimen. The specimen must withstand the test voltage for 1 minute.
Sealing performance	After immersing in water for 1 month at a depth of 1m, the test specimen must pass the withstand voltage test.
Thermal cycle	After 5 thermal cycles (1 cycle = -25°C x 30 min → 20°C x 10 min → 75°C x 30 min → 20°C x 10 min), the test specimen must pass the withstand voltage test.
Low-temperature performance	Crimp the test specimen at -20°C, leave it for 1 hour at -55°C, then allow it to return to room temperature. The test specimen must pass the withstand voltage test.
Low-vibration fatigue performance	After subjecting to vibration for 8 hours at an acceleration of 7G, the test specimen must pass the withstand voltage test.

Size

Product serial number	Dimensions (mm)				Applicable wire size		Specialized crimping tool	Standard colors
	dφ	Dφ	L	l	mm ²	AWG		
SS-2220	1.4	3.8	25	11.5	0.3 - 0.5	22-20	NH-82	Transparent Yellow
SS-1816	1.7	4.2	37	15.0	0.75 - 1.25	18-16	NH-82	Transparent Red
SS-1414	2.3	4.9	37	15.0	2.0	14	NH-82	Transparent Blue
SS-1010	3.4	6.4	42	15.0	5.5	10	NH-82	Transparent Yellow

SUMITUBE™

A
C
A4
LA
C (UL)
D
A2

B
LB

F (Z)
F3 (Z)
NHR2
NHR4
V (300V)
V (600V)

F2 (Z)
F4 (Z)
B2
B2 (3X)
B8

K
K2

KH200 (TW)

KH230 (TW)

B6

R
AN25

W

O2C
W3C

O2B2
W3F2
W3B2
W3B2 (4X)
SA2
SA3

IRRAX™TUBE IRRAX™TAPE

A
B
F2
F2 (UL)
V2
RP3
B8
ER2
NHR
FE2
VZL

IRRAX™SLEEVE

SCM2
SBI 300/350
SNHM

Composite articles

SUMISEAL

SUMITUBE SA3 CAP

Processing equipment

SUMISHRINKER / HEATING GUN