

### 시험결과(참고)

**제품명** Gel Wrap

**형식명** -

**신청자** 신우아이엔이주식회사  
서울특별시 송파구 충민로 52, 9층 디901, 디902호 (문정동, 가든파이브웍스)

**제작자** 타이코레이캠 유한회사  
서울특별시 송파구 법원로11길 12, 5층(문정동, 한양타워)

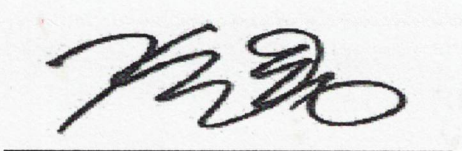
**시험일자** 2022-07-27

**발행번호** 22DC200594


본 시험은 신청자의 요구에 따라 수행되었으며, 시험결과는 시험 중 관찰된 내용을 기록한 것임.  
 본 시험결과(참고)는 시험품에만 적용됨.  
 본 시험결과(참고)는 참고 용도로만 사용가능하며, 홍보, 선전, 광고 및 소송용으로 사용할 수 없음.  
 본 시험결과(참고)는 총 12 페이지로 구성됨.

KERI 서면승인 없이 본 시험결과(참고)의 일부를 복사하여 사용할 수 없음. 전자사본은 기술정보일 뿐임.

작 성   
 조정혁

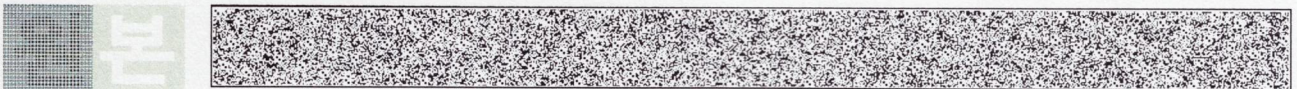
승 인   
 (기술책임자) 김근용

발 행 일 2022-10-07

한국전기연구원장 

**KOREA ELECTROTECHNOLOGY RESEARCH INSTITUTE** 창원본원 경상남도 창원시 성산구 전기의길 12(성주동) Tel : 055 280 1114, Fax : 055 280 1512

안산본원 경기도 안산시 상록구 항가울로 111(사동) Tel : 031 8040 4404, Fax : 031 8040 4499





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**정격**

해당 없음





**시험품 식별**

**제작자 제시사항**

**Gel Wrap**

제작자

타이코레이캠 유한회사

형식명

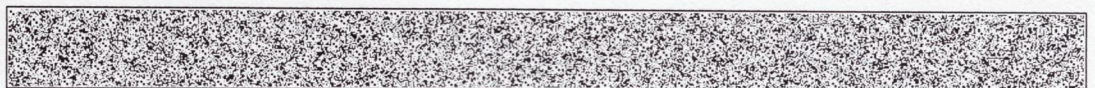
-

제조번호

-

적용전선

HFCO 16 mm<sup>2</sup>





**일반사항**

**기술책임자 :**

김근용

전기특성시험실

**시험자 :**

조정혁

전기특성시험실

**입회자 :**

노창석

신우아이엔이주식회사

**측정불확도**

해당 없음





**기 타**

본 시험은 신청자가 제출한 시험품에 대하여 시험한 결과임.





**시험 결과**

	항 목	시험장소	페이지
1	절연저항 측정	KERI-C2	8
2	상용주파 수중 내전압시험	KERI-C2	9

KERI-C2 : 한국전기연구원 전기기기평가본부(안산)  
경기도 안산시 상록구 향가울로 111(사동)





**1. 절연저항 측정**

시험일자 2022-07-27

**시험조건**

시험방법 분리된 두 절연전선을 Gel Wrap으로 접속하여 30 cm 의 물에 침수 시킨 후에 도체와 물 표면 절연저항을 측정  
측정기기 DC 1000 V Megger  
주위온도 28.4 °C

**시험기준**

2 000 MΩ 이상일 것

**시험결과**

2 000 MΩ 이상



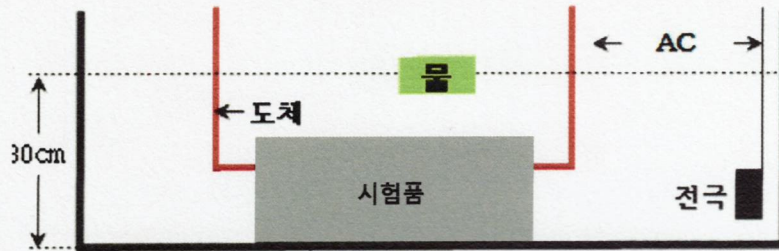


**2. 상용주파 수중 내전압시험**

시험일자 2022-07-27

**시험조건**

대기조건 28.4 °C, 64.3 % R.H., 1 006 hPa  
시험전압 AC 60 Hz 1 kV  
시험시간 1 min  
시험품 설치



**시험기준**

절연파괴나 섬락이 일어나지 않을 것

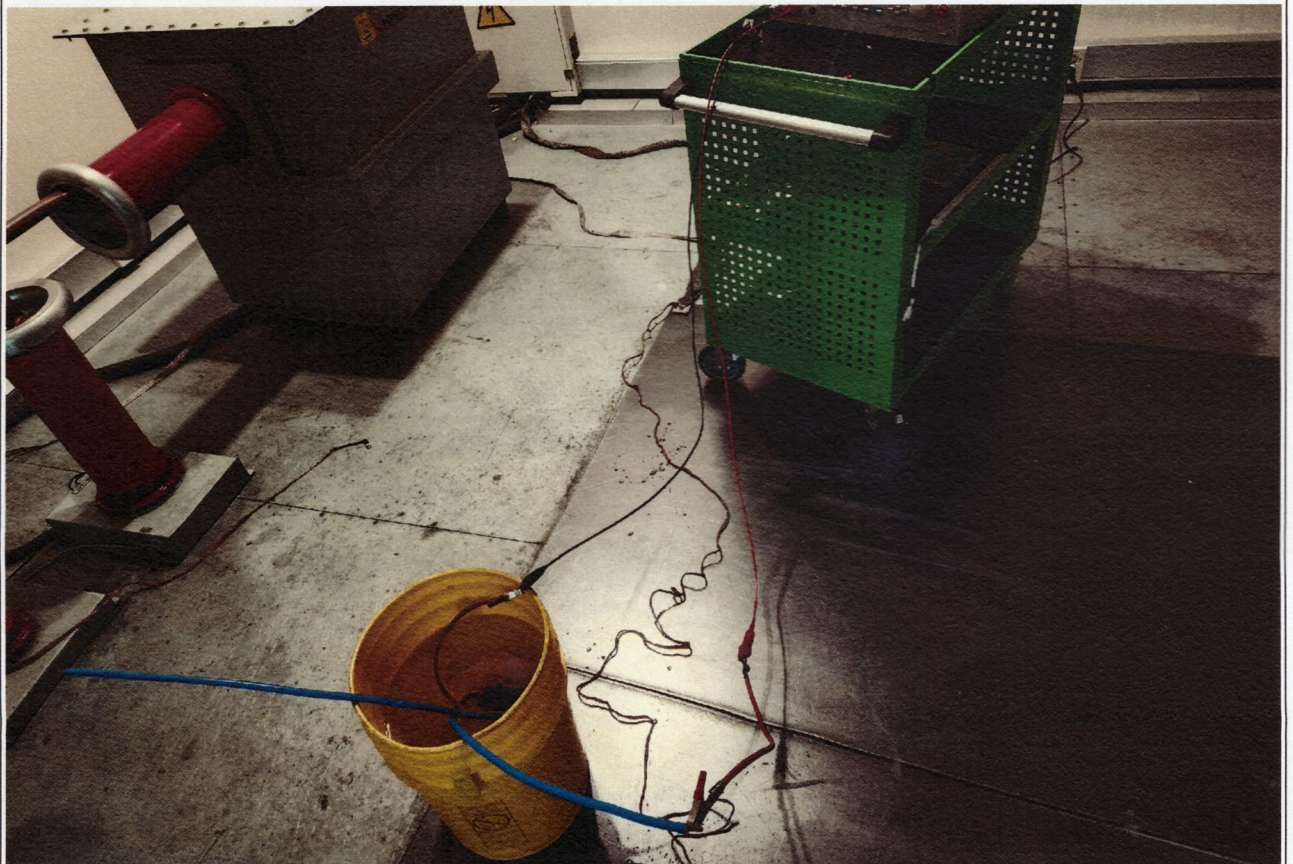
**시험결과**

견딤

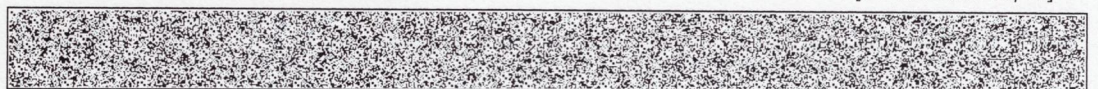




사진

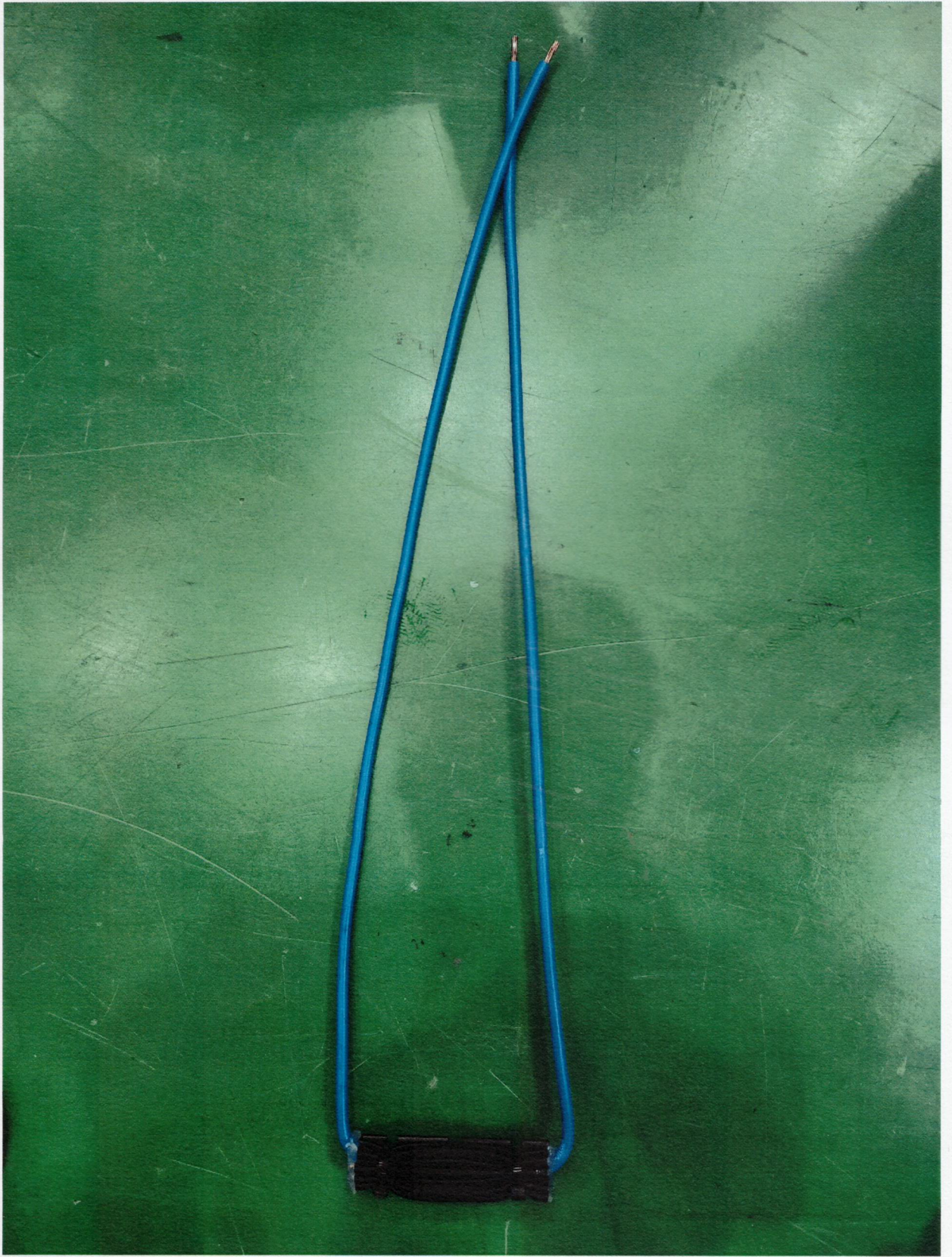


상용주파 수중 내전압시험





첨부



사진\_시험품





**안 내 문**

한국전기연구원(이하 “KERI”라 함)은 아래의 시험결과 문서를 발행한다.

**1. STL Type Test Certificate**

STL Type Test Certificate는 IEC 표준 및 IEC 표준과 일치하는 지역/국가 표준을 준수하고 STL Guide 및 Rule을 엄격히 적용하여 수행한 최고 권위의 시험기록이며, KERI는 시험품이 해당 표준 및 STL Guide의 요구사항에 만족함을 보증한다.

**2. KERI Type Test Certificate**

KERI Type Test Certificate는 IEC 표준 및 IEC 표준과 일치하는 지역/국가 표준을 준수하고 STL Rule 및 KERI 시험인증절차를 엄격히 적용하여 수행한 시험기록이며, KERI는 시험품이 해당 표준의 요구사항에 만족함을 보증한다.

**3. 형식시험성적서**

형식시험성적서는 KERI가 인정하는 공인표준을 준수하고, KERI 시험업무규정을 적용하여 일련의 형식시험을 완전하게 수행한 시험기록이다.

**4. 시험성적서**

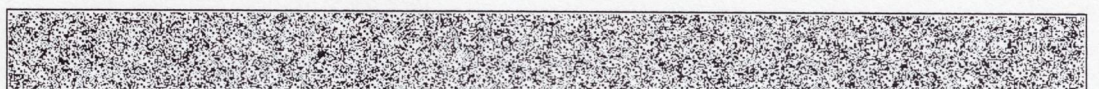
시험성적서는 KERI가 인정하는 공인표준에 따라 하나 이상의 시험항목을 수행한 시험기록이다.

**5. 시험결과(참고)**

시험결과(참고)는 신청자가 제시한 시방 또는 요구사항에 따라 수행한 시험기록이다.

※ 시험 결과물에 대한 진위는 시험고객 홈페이지([https://trca2.keri.re.kr/KERI\\_CUS\\_PORTAL/main.lims](https://trca2.keri.re.kr/KERI_CUS_PORTAL/main.lims))에서 확인할 수 있으며, 보다 자세한 사항은 KERI 홈페이지([www.keri.re.kr](http://www.keri.re.kr)) 또는 시험운영실 (055-280-1111)에서 안내받을 수 있습니다.

끝.





# CERTIFICATE OF COMPLIANCE

**Certificate Number** 20170918-E91151  
**Report Reference** E91151-20041213  
**Issue Date** 2017-SEPTEMBER-18

**Issued to:** TYCO ELECTRONICS CORP  
2901 FULLING MILL RD  
MIDDLETOWN PA 17057-3170

**This is to certify that  
representative samples of**

**SEALED WIRE-CONNECTOR SYSTEMS**

Insulating, Splicing Sleeves for Underground Conductors, Part Nos. GelWrap, followed by 18/4, followed by followed by a three or four digit numeric code, followed by UL, may be followed by a three digit alphanumeric code, may be followed by SGL or the letter B and a two digit number; Part Nos. GelWrap-UF-250UL and GELWRAP-UFXT-450UL, may be followed by a three digit alphanumeric code, may be followed by SGL or the letter B and a two digit number; all model numbers may have a 4 digit alphanumeric prefix.

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

**Standard(s) for Safety:** UL486D, Standard for Sealed Wire Connector Systems  
CSA C22.2 No. 198.2-05, Standard for Sealed Wire Connector Systems

**Additional Information:** See the UL Online Certifications Directory at [www.ul.com/database](http://www.ul.com/database) for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's Certification and Follow-Up Service.

Look for the UL Certification Mark on the product.



Bruce Mahrenholz, Director North American Certification Program

UL LLC

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## DESCRIPTION

## PRODUCT COVERED:

USL, CNL -Insulating, Splicing Sleeves for Underground Conductors, Part Nos. GelWrap, followed by 18/4, followed by **followed by a three or four digit numeric code**, followed by UL, may be followed by a three digit alphanumeric code, may be followed by SGL or the letter B and a two digit number; Part Nos. GelWrap-UF-250UL and GELWRAP-UFXT-450UL, may be followed by a three digit alphanumeric code, may be followed by SGL or the letter B and a two digit number; all model numbers may have a 4 digit alphanumeric prefix.

## RATINGS:

18/4 Models

Voltage Rating: 600 V,

Wire Range - 14-4/0 AWG

Models GelWrap-UF-250UL and GELWRAP-UFXT-450UL

Voltage Rating - 600 V

Wire Range - Nos. 14-8 AWG, two or three conductors plus a ground UF cable; copper wire only.

Tightening Torque - For models incorporating Unlisted Component Terminal Block UFCH - 8 **in** lb; For models incorporating Unlisted Component Terminal Block R-795 - 7 **in** lb; For models incorporating Unlisted Component Terminal Block R-1661 - 15 **in** lb

Wire Strip Length - For models incorporating Unlisted Component Terminal Block UFCH - 5/8 in.; For models incorporating Unlisted Component Terminal Block R-795 or R-1661 - 1/2 in.

## ENGINEERING CONSIDERATION (NOT FOR FIELD REPRESENTATIVE'S USE):

18/4 models are wrap around gel filled splice sleeves which consist of two materials for outer body and gel. They are intended to be installed over Listed, crimp-type, splicing wire connectors with Listed stainless steel tie wraps. The connectors are not supplied with the system. Models Part Nos. Gelwrap-UF-250UL and GELWRAP-UFXT-450UL are kits which are supplied with connectors.

\* USL indicates investigation to the Standard for Insulated Wire Connector Systems for Underground Use or in Damp or Wet Locations, UL **486D**.

CNL indicates investigation to the following Canadian Standards:

CAN/CSA C22.2 No. 0-M91- General Requirements - Canadian Electrical Code, Part II

CAN/CSA C22.2 No. 198.2-M1986 - Underground Cable Splicing Kits



## NOMENCLATURE:

(a) GelWrap- (b)- (c)- **UL** - (d) - ( **e** )

(a) - Four digit alphanumeric prefix designating customer specific packaging or private label (optional)

Basic Cat. No. - GelWrap

(b) - Size/type\* 18/4**( c ) Three or four digit numeric code - sleeve length in millimeters****UF-250****UFXT-450****(d) - Three digit alphanumeric code designating customer specific packaging or private label (optional)****(e) - Bxx - Quantity in box**Ex. (B10) indicates box of 10 (optional)SGL - single unit in package (optional)

## CONSTRUCTION DETAILS:

General -

Markings - The following shall be marked, in its entirety, on the tubing unit container or on an information sheet provided in each unit container.

For All Part Nos.:

1. Listee's name or Tradename "Raychem".
2. Cat No.
3. Maximum dimensions of the Listed connectors intended to be used with the wraps(18/4 models only).
4. Statement indicating that the specific crimping tool recommended by the Listed connector manufacturer shall be used(18/4 models only).
5. Statement indicating that the system has been found acceptable for insulating a pressure wire connector and is intended for burial directly in the earth.
6. Electrical rating (600 V)
7. Wire Range

Additional For Part Nos. GelWrap-UF-250UL and GELWRAP-UFXT-450UL:

1. Wire Range and Type(as specified in ratings section)
2. Tightening torque(either "8 **in-lbs**", "7 **in-lbs**" or "15 **in-lbs**" as specified in ratings section)
3. Wire Strip Length(either "1/2 in" or "5/8 in" as specified in ratings section)

The following optional markings may also be included on all models:

1. "Submersible"



## INSTALLATION INSTRUCTIONS:

Provided with each unit container. Refer to Ill. 1 for example.

Installation instructions for 18/4 models shall include the following items along **with items 1 -3**(or the equivalent) in Ill.1

- 1.)Max Compression Connector diameter - 0.85 in. (22 mm)
- 2.)Max Mechanical Connector Dimensions(H x W): 1.2 x 1.1 in.(30 x 28 mm)
- 3.)Minimum Seal Length: 2 in.(50 mm) along with an image of how to determine seal length measurements

Installation instructions for models GelWrap-UF-250UL and GELWRAP-UFXT-450UL shall include the following items along with items 1 -3(or the equivalent) in Ill.1

- 1)Minimum Seal Length: 2-1/2 in.(75 mm) along with an image of how to determine seal length measurements



# ZMWQ.E91151 - Sealed Wire-connector Systems

*Note: We are enhancing our systems and you may notice duplicate entries/missing/outdated data. During this interim period, please contact our Customer Service at <https://www.ul.com/about/locations>.*

## Sealed Wire-connector Systems

**TYCO Electronics Corp**  
2901 Fulling Mill Rd  
Middletown, PA 17057 United States

E91151

Trademark and/or Tradename: "DATAGUARD", "DITEL", "DTERMINATOR 2", "FIBRBOSS", "GELGUARD", "LIGHTRAX", "LVBT", "LVIT", "RAYNID", "RAYVOSS", "RVC", "RVS", "STRIKESORB", "TELTECT", "TRAC", "WCSM"

Note: For additional marking information, refer to the [Guide Information Page](#).

**Sealed wire connector systems**, Model(s): C-20, C-30, C-40, GelWrap-18/4-150UL @, GelWrap-18/4-200UL @, GelWrap-18/4-250UL @, GelWrap-18/4-300UL @, GelWrap-18/4-350UL @, GelWrap-18/4-400UL @, GelWrap-18/4-450UL @, GelWrap-18/4-500UL @, GelWrap-18/4-550UL @, GelWrap-18/4-600UL @, GelWrap-UF-250UL @, GelWrap-UFXT-450UL @, HS-SPLICE-KIT-#8-1/0, HS-SPLICE-KIT-14-8, HS-Splice-Kit-UF, RVC-1V, RVC-2V, RVC-3V, RVC-4V, RVS-11, RVS-12, RVS-13, RVS-14, T-10, T-20, T-30, T-40, T-50, W-10, W-20, W-30, WCSM 13/4, WCSM 20/6, WCSM 33/8, WCSM 43/12, WCSM 51/16, WCSM 70/21, WCSM 9/3, WCSM or RHW

**Sealed wire connector systems**, Model(s): WCSM or RHW, followed by 56/16, followed by a 3 or 4 digit number from 225-1200, followed by -S, may have a four digit alphanumeric prefix.

**Sealed wire connector systems**, Model(s): WCSM or RHW, followed by or 70/20, followed by a 3 or 4 digit number from 300-1200, followed by -S, may have a four digit alphanumeric prefix.

@ - May be followed by a three digit alphanumeric code, may be followed by a three or four digit numeric code, may be followed by SGL or the letter B and a two digit number, may have a 4 digit alphanumeric prefix.

Last Updated on 2022-03-22

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