

Technical Information Sheet #301C

Subject: **Manufacturers' Instructions for Lifeline® RHW Cables**

Products Covered: Lifeline® RHW, UL Listed Type RHH/RHW-2, Two Hour Fire Rated & Classified per UL System # 25 (FHIT.25)

Lifeline® cables are UL Listed, Type RHH/RHW-2 and as such are code compliant when selected and installed per the National Electrical Code. Additionally, ceramification technology allows the installation to be a two hour fire rated system when compliant with any added requirements or options in UL Electrical Circuit Protective System # 25 that apply to the installed system. Lastly, Draka produces Data Sheets and a number of Technical Information Sheets on specific topics that should be of help to the specifier, installer or AHJ of the installed system.

Requirement:

1. **National Electrical Code (NFPA 70)** - Applicable issue and any local codes or addendums that may apply. Covers the selection and use of Lifeline® RHW in the application.
2. **UL Electrical Circuit Protective System # 25 (FHIT.25)** - Latest fire system information that applies to the fire rating classification can be found on the UL website using the following procedure:
 - a. Log on to "http://www.ul.com", Left side of page: click on "CERTIFICATIONS"
 - b. Under "Specific Search": click on "Fire Resistive Assemblies and Systems"
 - c. Click on "Electrical Circuit Protective System", Click on "View a list of all current UL Classifications"
 - d. Click on FHIT.25.

Further information can be obtained by contacting Draka USA engineering at the Lifeline® number or Underwriters Laboratories, Fire Protection Division at 847-272-8800.

3. **Manufacturers Instructions** - All Lifeline® products are covered by specific data sheets and a series of general "Technical Information Sheets" that provide the user with information to properly select and install Lifeline® products in a reliable and trouble free manner. Should you have any question, do not hesitate to call your Lifeline® representative at **800-333- 4248 ext. 2600**.

See Page 2 for Contractor Check List

Contractor Check List

Lifeline® RHW - Two Hour Fire Rated Cable System

1. Cable - UL Listed RHH/RHW-2, code compliant cable which is UL Classified for its fire rating and recognized in the manufacturers UL Electrical Circuit Protective System # 25 (FHIT.25).
2. Conduit System - Code compliant conduit system with the following restrictions:
 - a. Must be all steel components or components that have been fire rated and approved. This excludes aluminum, die cast (zinc), plastics, etc.
 - b. Conduit must be supported every five feet (60 inches) in lieu of the code standard of ten feet unless a different spacing has been verified by manufacturer testing.
3. Conduit Sizing - Use manufacturers data to calculate conduit fill. Lifeline® RHW is a small diameter composite cable without an outer covering. Proper sizing and conduit fill is given in the Lifeline RHW Data Sheet.
4. Splices - Avoid cable splices in the fire zone. At present there is no approved cable splice for Lifeline® RHW. Use pull boxes and planning to achieve a continuous cable installation. See TIS # 310 - "Splicing, Repair and Long Length Installations" for additional information and alternate procedures.
5. Vertical Cable Runs -
 - a. When installing Lifeline® RHW in a vertical raceway, the cable shall be supported at a maximum distance of 50 feet (smaller sizes) but never greater than the distance given in Table 300.19(A) of the National Electrical Code. The minimum conduit support distance is 72 inches.
 - b. The support may be any recognized method suitable for the purpose outside of the fire zone or an approved type of support when used in a fire rated enclosure within the fire zone. Refer to TIS 316 "Vertical Runs Using Lifeline® Power Cables".

Additional Installation Notes

- FLEXIBLE TERMINATION - Up to 72 inches (6 feet) of flexible metallic conduit may be used at any termination point.
- LUBRICANTS & CABLE PULLING - Tested and approved lubricants are Polywater Cable Lubricant "J" and Yellow 77 Wire Pulling Lubricant. Conduits with long or difficult pulls should be pre-lubed. Follow TIS 314A "Cable Pulling Data and Procedures for Lifeline® RHW"
- MATCHED LENGTHS - Lifeline® RHW can be supplied in matched lengths. Procedure calls for contractor to pull and measure a marker through the conduit run, add appropriate cable length for pulling and hook up, then order cable as matched lengths.

Further information can be obtained by contacting Draka Cableteq USA engineering at the Lifeline® number or Underwriters Laboratories, Fire Protection Division at 847-272-8800.

Call you Lifeline® friend at:
800-333-4248 x2600
or visit www.drakausa.com/lifeline