

## POTTING PROCEDURE: PHILLYSTRAN® HPTG-I

381-2/06

**Caution:** All work must be performed in a well ventilated area.

### PREPARATION OF THE PHILLYSTRAN HPTG-I ROPE END:

1. Insert cable through strain relief and corona socket, making sure strain relief tab is away from cable end.
2. Mark cable at strain relief start using tape or grease pencil.
3. Remove jacket using a soldering gun equipped with a cutting tip. Be sure that the heat generated by the gun does not exceed 500° F (260°C). Refer to **Table 1** for "Split Jacket To" and "Remove Jacket To" for measurements.
4. Separate and broom out the individual ends of the fiber. It is necessary to pull each impregnated strand into two halves.

**Figure 1** shows an HPTG-I finished and ready to be potted.

5. Pull the broomed end of the cable into the corona socket until the strain relief start mark emerges from the bottom of the socket. Care must be taken not to pull the cable out too far.
6. Line up the strain relief with the strain relief start mark (**refer to Table 1**) and pull the tab to collapse the strain relief.
7. Wrap electrical tape around the end of strain relief and push cable back into the corona socket for a snug fit.
8. Place putty around strain relief at bottom of corona to prevent the resin from leaking.
9. Secure the fitting in a vertical position being sure that the longitudinal axes of the fitting and rope are in line. **Figure 2**

### MIXING POURING AND CURING

**Note:** Socketfast Blue, the resin potting compound used to terminate Phillystran HPTG-I rope, is a two component system available in pre-measured units. Once mixed, the compound has a gel time or pot life of 20-30 minutes at 70°F (21°C). Gel time increases at lower temperatures and decreases at higher temperatures. The compound is designed for optimum application performance at 75°F (23.9°C), and should not be used at material temperatures below 65°F (18.3°C) or above 85°F (29.4°C). When the ambient temperature is out of this acceptable range it will be necessary to warm or cool both the fitting and the resin components, prior to mixing and pouring.

1. Mix the potting compound following the manufacturer's directions.
2. Because of the density of the Phillystran HPTG-I fiber broom when pulled down into the fitting basket, it is necessary to form a channel for the potting medium to insure complete saturation of the broom. This is accomplished by inserting a narrow stick into one side of the basket and gently moving the fibers to one side. The mixed potting compound is then poured into the resulting channel at a rate which allows displaced air to escape and which does not flood the top of the basket. After a few minutes, it may be necessary to add more potting compound to fill the basket. With the basket full, the displaced fibers are moved back into their original position to assure even distribution within the fitting.
3. After the compound has gelled, wait 30 minutes or until the heat has dissipated before moving the assembly. Apply black silicone sealant to the top of the basket until it is level with the clevis slot. Remove putty from the bottom of the fitting and clean the area with alcohol or a similar solvent to remove putty residue. After solvent has dried, apply black silicone sealant to level off bottom of fitting.
4. A cure period of 24 hours at 65°F (18.3°C) or higher is required to attain satisfactory holding power. Curing at lower ambient temperatures can be accomplished by placing and maintaining the finished termination in a temperature environment of 65°F (18.3°C) or higher.



**Figure 1**



**Figure 2**

CORONA SOCKET SIZE	NOMINAL LENGTH	END FITTING DEDUCTION	STRAIN RELIEF START	REMOVE JACKET TO	STRAIN RELIEF SIZE
CS1200-4000	6	1-1/4	2-1/4	1-3/4	None
CS6700-15400	10	2	5-1/4	4-1/4	8425-7PST
CS20800-35000	14	2-3/4	7-1/2	6-1/2	8426-9PST
CS42400	15	3	8	7	8427-12PST
CS50000-58300	17-1/2	3	10	9	8427-12PST
CS70000-85000	20	3-1/4	11-1/2	10	8427-12PST
CS105000-130000	25	5	13	11	8428-18PST
CS160000-200000	27	5	13	11	8428-18PST
CS232000-252000	32	5	17	15	8428-18PST

Table 1

Weights and Dimensions can vary

**(all measurements are in inches)**

**Note:** HPTG-I 1200, 2100, 4000: These size cables do not use a strain relief. Step six in the procedure is deleted and step 7 becomes: Wrap electrical tape around the cable at the strain relief mark and push the cable back into the corona socket for a snug fit. The top of the fibers in the corona socket must reach the end fitting deduction.

**CAUTION: Break Strength:** The breaking strength of a rope is the load at which a new rope will break when tested under laboratory conditions. Break strength should not be mistaken for safe working load. **Safe Working Load:** Because of the wide range of rope use, rope condition and the degree of risk of life or property, it is not possible to make a blanket recommendation for safe working load. It is ultimately dependent on the rope user to determine what percentage of break strength is their own safe working load. **Wear:** Ropes wear out with use; the more severe the usage, the greater the wear. It is often not possible to detect wear on a rope by visible signs alone. Therefore, it is recommended that the rope user determine a retirement criteria for ropes in their application. For assistance in developing safe working load and retirement criteria for each application please call or write Phillystran, Inc.

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**Phillystran, Inc.**  
 151 Commerce Drive  
 Montgomeryville, PA 18936-9628 USA

Phone: 215-368-6611  
 Fax: 215-362-7956  
 E-mail: [info@phillystran.com](mailto:info@phillystran.com)