



**PRYSMIAN**  
CABLES & SYSTEMS



***elaspeed***<sup>®</sup>  
CABLE SPLICES

# elaspeed<sup>®</sup>

## CABLE SPLICES

### *The low profile, cold shrink, range taking, 105°C operating temp cable splice*

Prysmian introduces its latest cold applied splice technology into the North American medium voltage cable accessories market. The Elasppeed<sup>®</sup> splice version is quick and easy to install, saving time and cost over alternative methods.

The Elasppeed<sup>®</sup> is not a molded splice. It is manufactured in exactly the same way as extruded dielectric cable. The core is constructed from ethylene propylene rubber (EPR) on a vertical triple extruder which maintains its concentricity to the tightest tolerances possible. It is then tested as a cable to ensure long and trouble-free operation under a wide variety of applications and conditions. The Elasppeed<sup>®</sup> has the highest physical and dielectric properties and it utilizes the Prysmian Eprotenax<sup>™</sup> insulation system.

When manufacturing is complete, all components which are integral to the splice (conductor electrode, high permittivity layer, insulation, semi-conductive insulation shield, metallic shield and jacket) are expanded onto a self-ejecting support tube, which when released allows the splice to shrink onto the cable creating a tight circumferential interface.

#### **WHY USE Elasppeed<sup>®</sup>?**

##### **Testing**

The Elasppeed<sup>®</sup> splices meet or exceed the stringent test criteria of IEEE 404.

The core of each Elasppeed<sup>®</sup> is factory tested to ensure the splice will maintain the integrity of the electrical cable system on which it is installed.

##### **Safety**

The Elasppeed<sup>®</sup> is installed without the use of heat or open flames, which can be hazardous in many locations.

##### **Watertight**

The circumferential pressure of the Elasppeed<sup>®</sup> jacket in conjunction with the cold flow properties of the mastic supplied with the splice kit, will not allow any ingress of water. The Elasppeed<sup>®</sup> splice has passed external water pressure tests of 45 psi. In addition, the tight interface between the cable and splice body can withstand internal pressures up to 30 psi.

##### **Installation**

The Elasppeed's<sup>®</sup> self-ejecting tube along with its integral construction design, makes it quick, easy and less costly to install.

##### **Compatibility**

The Elasppeed<sup>®</sup> is compatible with all solid dielectric extruded shielded cables. It also can be used with all types of metallic shielding.

##### **Range Taking Capability**

A major advantage of the Elasppeed<sup>®</sup> splice is its versatility. The splice series covers a wide range of sizes from #2 AWG to 1000 kcmil and voltages from 5kV thru 35kV. Individual splices are capable of joining cables of different insulation thickness and conductor sizes.

##### **Small Profile**

Elasppeed<sup>®</sup> splices behave like EPR cable when it comes to bending in tight manhole situations. Splices can be bent to the same radius as the cable on which it is applied. Also, its small profile consumes noticeably less installation space.

##### **Reliability**

Elasppeed<sup>®</sup> splices are reliable, because they always shrink uniformly, and there is only one complete unit to shrink. No matter how many splices are installed, the last splice will be as reliable as the first.

### ELECTRICAL CHARACTERISTICS

Strong physical properties and moisture resistance are only some of the improved Elasppeed® Characteristics when compared to alternative splice designs. The Eprotenax™ insulation utilized in Elasppeed® splices has been used in service up to 150kV and in medium voltage applications since 1963.

A fundamental measure of expected splice performance is its reaction to severe electrical conditions. Elasppeed® splices meet or exceed the requirements of IEEE 404 as shown below:

#### Basic Impulse Level

Voltage Class	IEEE 404 Test Level	Elasppeed® splice
15kV	110kV	150kV
25kV	150kV	170kV
35kV	200kV	220kV

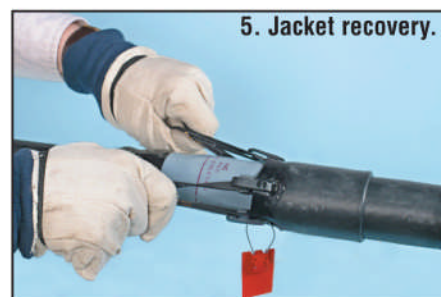
Elasppeed® splices have used on EPR insulated electrical systems where the conductor temperature has been maintained at 105°C for a complete test sequence. Request copies of IEEE Transaction Paper #95 UM016-6 PWRD.

### DESIGN FLEXIBILITY

Elasppeed® splices are available with several alternative shield/neutral connection systems. These include constant tension springs, LC Shield® connection jumper kits or a combination of these shield connectors. Further design flexibility is provided through the use of separate jackets over Elasppeed® splice cores, allowing the installer to connect existing concentric neutral wires before jacketing the splice.

These options may permit further inventory reduction by reducing the number of items in stock.

Qualification test copies are available on request. Contact your Prysmian representative.



### SELECTION GUIDE

Catalog Number	Conductor Size AWG/kcm	Insulation Diameter Minimum	Jacket Diameter Maximum
<b>15kV - 100% insulated cables (175 mil)</b>			
15SDJBe	2 - 3/0	0.68	1.26
15SEJCe	1/0 - 250	0.75	1.34
15SFJCe	4/0 - 500†	0.91	1.73
15SHJCe	250 - 500†	0.96	1.81
15SIPJCe	500 - 750	1.09	2.05
15SIJCe	750 - 1000	1.26	2.44

<b>15kV - 133% insulated cables (220 mil)</b>			
15SDJBe	2 - 2/0	0.68	1.26
15SEJCe**	2 - 4/0	0.75	1.34
15SFJCe	3/0 - 500	0.91	1.73
15SHJCe	4/0 - 500	0.96	1.81
15SIPJCe	350 - 750	1.09	2.05
15SIJCe	500 - 1000	1.26	2.44

<b>25kV- 100% insulated cables (260 mil)</b>			
25SDJBe	1 - 1/0	0.68	1.26
25SEJCe	1 - 2/0	0.75	1.34
25SFJCe*	1/0 - 350	0.91	1.73
25SHJCe	2/0 - 500	0.96	1.81
25SIPJCe	250 - 500	1.09	2.05
25SIJCe	500 - 1000	1.26	2.44

<b>28kV- 100% insulated cables (280 mil)</b>			
28SEJCe	1 - 2/0	0.75	1.34
28SFJCe	1 - 350	0.91	1.73
28SHJCe	1/0 - 500	0.96	1.81
28SIPJCe	4/0 - 500	1.09	2.05
28SIJCe	350 - 1000	1.26	2.44

<b>35kV- 100% insulated cables (345 mil)</b>			
35SHJC	1 - 250	0.96	1.81
35SIPJC	1/0 - 500	1.09	2.05
35SIJC	4/0 - 1000	1.26	2.44

Sizes are based on AEIC and ICEA specifications for typical compressed conductor, jacketed, 1/3 neutral cables.

\*These kits will not fit 1/0 solid conductor

\*\*These kits will not fit #2 solid conductor

† For copper tape shield cables, the range can be extended to 750 kcmil.



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### Connector Suffix Selection (Add Suffix to Catalog Number)

Conductor Size	Strand or Compressed	
2	-2	For Compact or Solid conductor add -C or -S to the suffix selected from the Strand or Compressed conductor column.
1	-1	
1/0	-1/0	
2/0	-2/0	
4/0	-4/0	
250	-250	
350	-350	
500	-500	
750	-750	
1000	-1000	

### NOTES:

- When selecting kits at the top end of the use range, check for proper fit over jacket.
- The selection guide is based on jacketed concentric neutral cables. When using LC or copper tape shield cables, the use range may be extended upward.
- The 15SDJBe and 25SDJBe kits contain a #3 equivalent shielding braid. All other kits contain a 1/0 equivalent shielding braid.
- The lower case "e" in the catalog numbers 15 thru 28kV indicates the splices have a built in electrode. This eliminates the need to apply high permittivity mastic over the connector. The three larger ("H", "IP", and "I") splices, if requested, can be supplied without an electrode.
- Connectors can be included by selecting the appropriate part number suffix. Standard connectors are Copper or Aluminum and size transitions are also available.
- Contact your Prysmian sales representative for more information, including data on size transition limits.

### Example

15kV, 175 mil, 750kcmil Copper with connector:  
15SIJCe-750 CU



### QUALITY STATEMENT

Prysmian has made a commitment to QUALITY LEADERSHIP, an on-going quality improvement process, which seeks to:

- Ensure customer satisfaction of our products and services.
- Build quality into all stages of company activity.
- Maintain leadership in cable technology.

Prysmian's QUALITY LEADERSHIP process is guided by:

- Quality and service shall be our first priority, thus ensuring the lowest total cost.
- Product shall satisfy customer expectations.
- Partnerships with our customers and vendors.
- Performance indicators used and referenced throughout the organization.
- Recognition of education and training as the means toward further development of our people.
- Quality improvement shall be continuous.