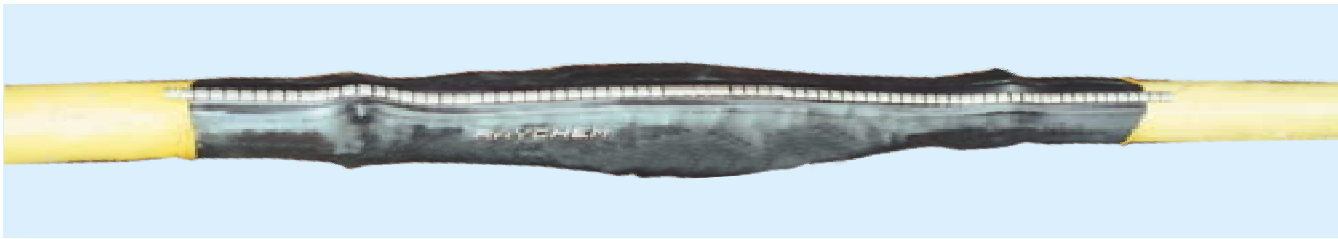

**RLVJ joints for
1.1 KV, PVC/XLPE Cables**



Factory engineered insulation
Reliable Moisture Sealing
No resins
Unlimited shelf-life
No curing time
Immediate backfill
Fast & economical

While several advances have recently been made in the materials and designs of medium voltage accessories, the techniques for jointing and terminating low voltage cables have largely remained unchanged. Traditionally these have relied upon casting the jointed cables placed inside a slim, compact two part plastic mould with a casting resin typically polyurethane. The purpose of providing a slim, compact mould was to minimise the use of the casting resin which constituted the main price component. The slim mould made the accommodation of the joint with proper clearance between the cores and mould difficult if not impossible



especially because of the curvature of the cable ends unwound from drums. Mixing and pouring of the resin, leakage through mould flanges and poorly sealed cable entry ends makes the installation craft sensitive and cumbersome. The resins have limited shelf life and cannot be stocked for emergency use in unpredictable cable breakdowns. The polyurethane resins are not effective in the presence of moisture and are hazardous to health.

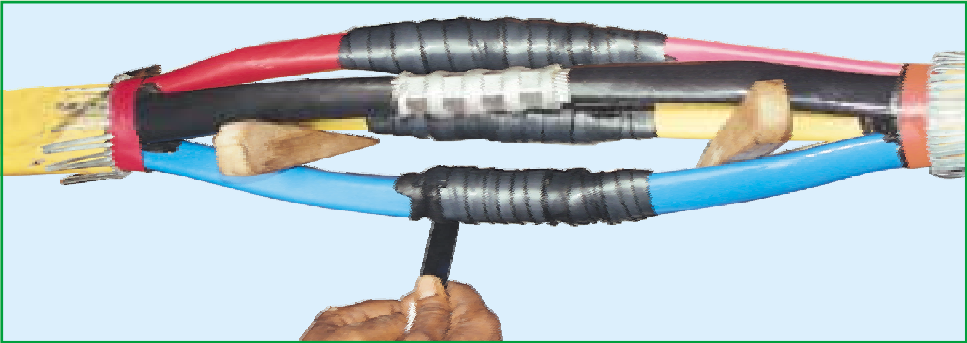
Raychem RPG, a pioneer in heat shrinkable cable accessories and the largest manufacturer of cable accessories in India now offer an ideal cable jointing system in the form of 'RLVJ' kits. RLVJ joints have been developed keeping in mind the customers requirements of reliability, safety, cost and convenience. RLVJ kits rely on the insulating and sealing properties of a unique mastic coated polymer tape 'POLYSTIX' that forms a tough tenacious water tight seal on the cable insulation and femule while providing a high level of factory engineered insulation. POLYSTIX can be easily and effectively applied by any electrician/jointer.. The only effort is the removal of the backing from the mastic and application over the connectors. An elastomeric core separator and mastic enhance the insulation and sealing system of the joint. RLVJ joints have a reliable electrical continuity of the armour through a tinned copper braid and are fully shielded with a steel mesh which in combination with a tough, radiation cross linked heat shrinkable sleeve having a hot melt adhesive coating on its inner surface, provides mechanical protection, sealing and corrosion protection. The kits have unlimited shelf life and can be safely stocked for emergency use. Free installation training is provided to enable the simplest craftsman to reliably, easily and quickly install RLVJ joints.

The performance of RLVJ kits on both PVC cables and XLPE cables has been successfully evaluated at CPRI, Bangalore in accordance with the UK Engg. Recommendations C-81. Several lending utilities like BSES, BEST, NDMC etc have successfully introduced RLVJ kits in their system.

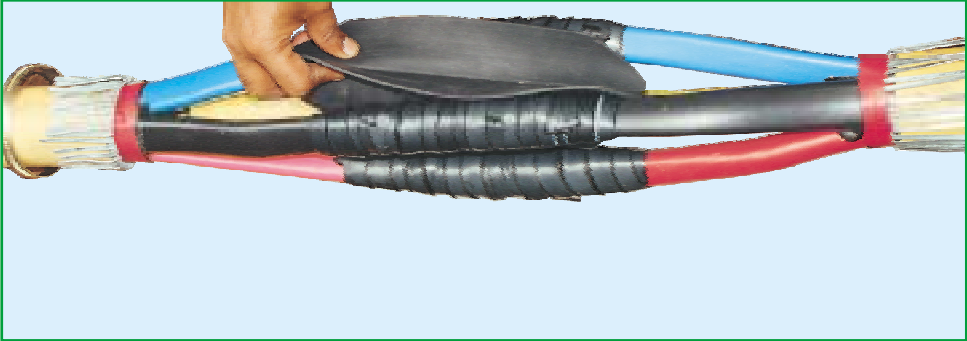
All these benefits come to you at a price comparable to resin based kits !!

Raychem RPG

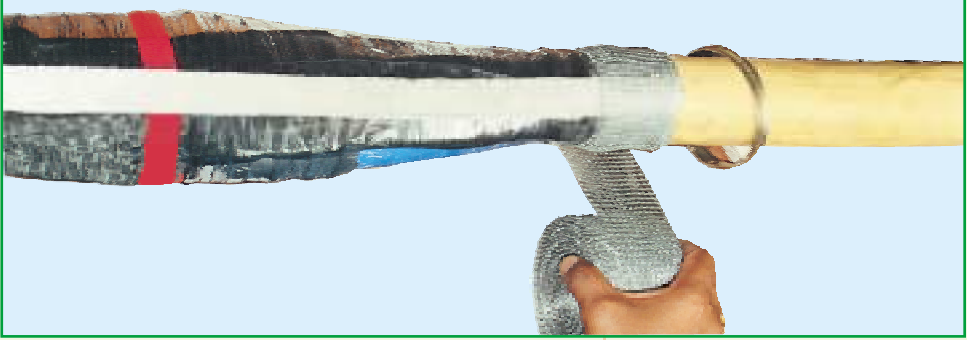
Simple sequence



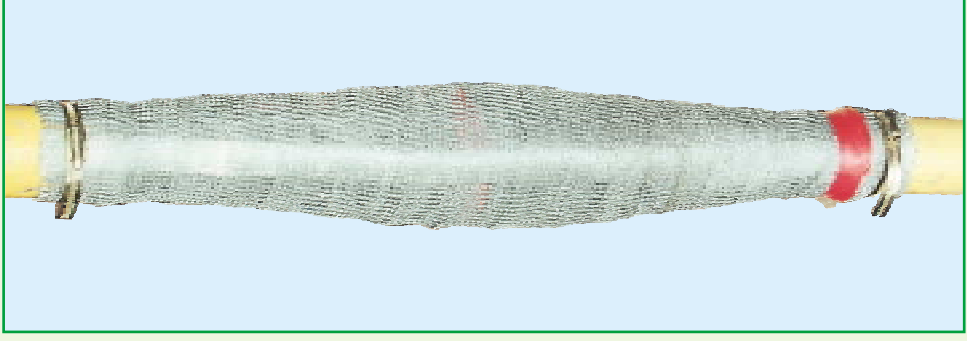
The conductors are connected by crimping . The connection insulated and sealed with POLYSTIX.



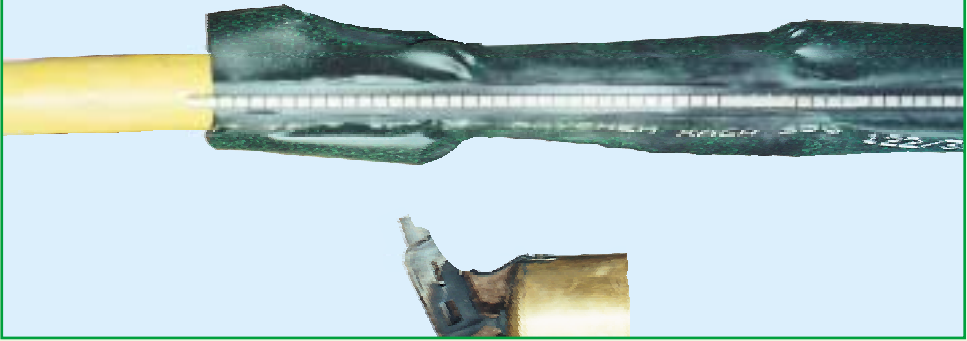
An elastomeric core separator enhances the insulation and mastic strips are used in interstices.



Reinstatement of inner sheath, electrical continuity of armour with copper braid and mechanical protection with steel mesh.



Steel mesh and copper braids clamped to armour.



Shrinking the wrap around heat shrink sleeve having an inner coating with a hot melt adhesive.

Minimum Performance For Raychem RLVJ Joints For Power Cables Upto 1.1 K.V.

Test Sequence

| <u>Test Sequence</u> | | <u>Result</u> |
|---------------------------------|--|--------------------------------|
| 1) Insulation Resistance : | between conductor and grounded water bath. | >1,000m ohms |
| 2) Impact Test : | Wedge shaped weight of 4 Kgs. Dropped 6 times from a height of 2 m (for armoured cables only). | No damage |
| 3) A.C. Voltage Withstand : | 4 KV for 15 minutes (joints) to be immersed in water. | No breakdown and no flashover. |
| 4) Impulse Voltage Withstand : | 10 positive and 10 negative, 1.2 / 50 micro secs, 8 KV peak between conductor and grounded water bath. | No breakdown and no flashover. |
| 5) Insulation Resistance : | between conductor and grounded water bath. | >1,000m ohms |
| 6) Load cycling : | 63 cycles, 5 hrs. Heating, 3 hrs. Cooling, conductor temperature PVC - 75 °C, XLPE - 95 °C. | Pass |
| 7) Thermal Short Circuit: | 1 second symmetrical fault with conductor temperature as per cable specifications. | No visible signs of damage. |
| 8) Load cycling : | 63 cycles, 5 hrs. Heating, 3 hrs cooling, conductor temperature PVC - 75 °C, XLPE - 95 °C with joint in 1 m of water | Pass |
| 9) Insulation resistance : | between conductor and grounded water bath. | >1,000m ohms |
| 10) Impulse Voltage Withstand : | 10 positive and 10 negative, 1.2 / 50 micro seconds, 8 KV peak between conductor and grounded water bath. | No breakdown and no flashover. |
| 11) D.C. Voltage Withstand: | 15 KV for 5 minutes. | No breakdown and no flashover. |

ORDERING INFORMATION

| Number of Core | Cable Size (Sq. Mm) | Kit number | Number of Core | Cable Size (Sq. MM) | Kit number |
|----------------|---------------------|------------|----------------|---------------------|---------------|
| 3/3.5/4 | 6 - 16 | RLVJ - S0 | 1 | 6 - 16 | RLVJ - S0 - 1 |
| 3/3.5/4 | 25 - 50 | RLVJ - S1 | 1 | 25 - 50 | RLVJ - S1 - 1 |
| 3/3.5/4 | 70 - 95 | RLVJ - S2 | 1 | 70 - 95 | RLVJ - S2 - 1 |
| 3/3.5/4 | 120 - 185 | RLVJ - S3 | 1 | 120 - 185 | RLVJ - S3 - 1 |
| 3/3.5/4 | 240 | RLVJ - S4 | 1 | 240 - 400 | RLVJ - S4 - 1 |
| 3/3.5/4 | 300 | RLVJ - S5 | 1 | 500 - 630 | RLVJ - S5 - 1 |
| 3/3.5/4 | 400 | RLVJ - S6 | 1 | 800 - 1000 | RLVJ - S6 - 1 |



Factory at Vasai

Contact your nearest Raychem RPG Sales Manager or Authorised Distributor for further details.

Raychem RPG Ltd

MUMBAI

Ceat Mahal Annexe
463, Dr. A.B. Road
Worli, Mumbai - 400 025
Ph.: 022 4937485
Fax: 022 4938879

BANGALORE

2-C, Jubilee Building
45, Museum Road
Bangalore - 560 025
Ph.: 080 5588167
Fax: 080 5586039

CALCUTTA

6, Church Lane, 1st. Floor
Post Box No. 164
Calcutta - 700 001
Ph.: 033 2109380/12
Fax: 2109313

NEW DELHI

709/10, Tolstoy House
Tolstoy Marg
New Delhi - 110 001
Ph.: 011 3329863
Fax: 011 3354250

CHENNAI

5th Floor, Crown Court
34, Cathedral Road
Chennai - 600 086
Ph.: 044 8111601/2707
Fax: 044 8110401

FACTORY

1/62, M.G. Road, Nr. Bharat Petrol Pump
Off. W.E. Highway, P. Satalivi
Bassein Taluka, Dist. Thane-401208
Tel.: 0250-455054/55
Fax.: 912-455003