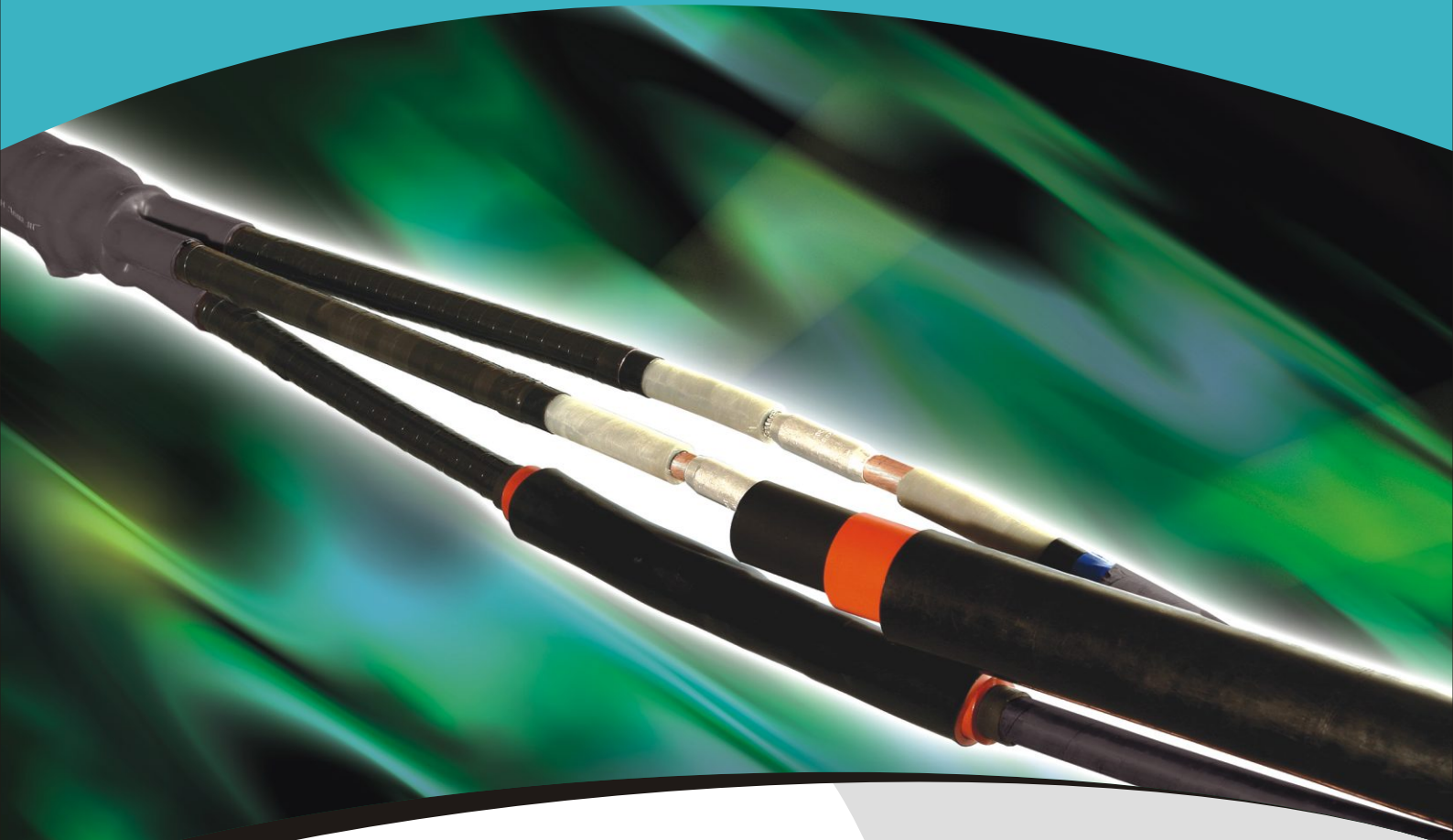




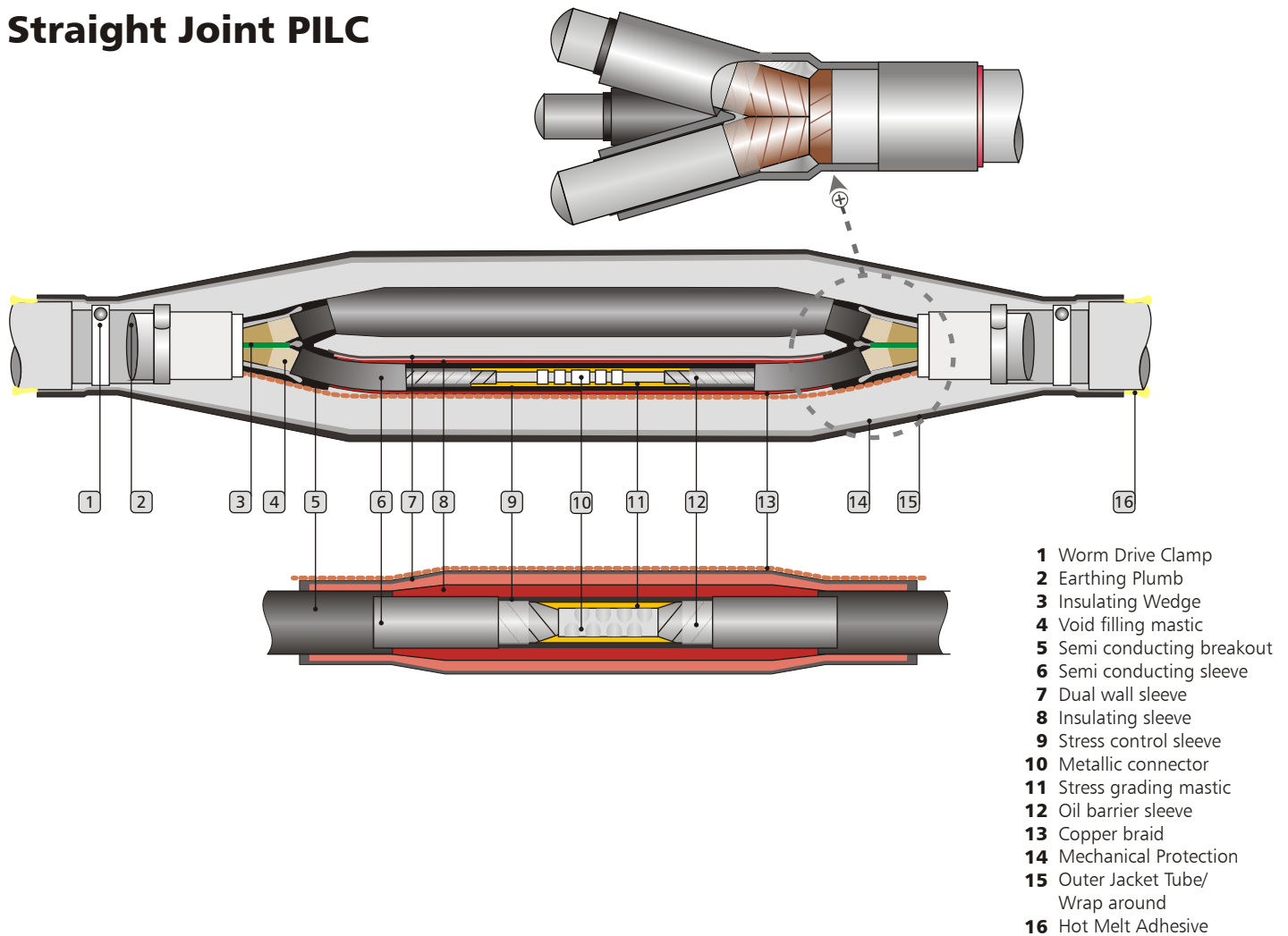
## Straight Joint PILC



M-Seals Heat Shrink (HS) joints for PILC cables offer the reliability and flexibility to meet the demands of power cable network operators. These kits are available for voltages upto 36kV. The M-Seal HS kits provide a lightweight, compact, and environmentally sealed system for jointing PILC power cables. These features allow the installation of this jointing system in ducts, vaults and direct-burial applications. The design concept incorporated takes care of the sealing of the PILC cable. To prevent the leakage of oil in the joint, special heat shrinkable transparent polymeric tubes are provided. The oil barrier tube is shrunk onto each of the cores over which a semi-conducting heat shrink tube is further shrunk. This helps in relieving the stress generated in the cores of the cable. Insulating void filler is applied in the core crutch and a heat shrinkable semi-conductive boot is shrunk around the same. This boot ensures that the void filler is forced into all air gaps and at the same time provides an electrical connection with the lead sheath at earth potential. Metal connectors are used to interconnect the cores of the two cable ends and it is coated with stress control mastic. The stress control mastic is covered with a heat shrink stress control tube over which a heat shrink insulating tubing is shrunk. Over this a dual wall heat shrink sleeve is shrunk. The dual wall comprises of an insulating inner layer and a semi-conducting outer layer. The inner layer provides sufficient insulation thickness to the joint while the semi-conductive layer is used for screen continuity. The joint is then covered with an outer jacketing tube or a wrap around sleeve to provide it with sufficient mechanical strength and abrasion resistance. For cables requiring additional mechanical protection, a specifically designed metallic case or encapsulation by polyurethane compound can be provided.

- Quick cable preparation
- High electrical insulation values
- No moisture ingress
- Good mechanical strength
- Good resistance against UV radiation, alkaline earths, chemical agents and subsoil effects
- Compact dimensions
- Immediate energisation possible
- Due to short installation time outages are kept to a minimum in repair situations
- Suitable for all conductor shapes, materials and connectors

# Straight Joint PILC



All components required for the joints are included in a single kit, which has a prolonged storage life under normal storage conditions. A few sizes of the kits cover the entire range of cables, helping in reducing inventories. The heat shrinkable components are light in weight and are made of specially formulated cross-linked polymeric material with excellent tracking and erosion resistance characteristics. The kits have been designed to meet various international standards like IS, HD, IEEE, IEC and BS. Our state-of-the-art manufacturing facility, in-house testing laboratories and accreditation to the ISO 9001 quality assurance standard, guarantees the performance of our materials to meet customer requirements.

## Minimum Performance Of M-Seal Straight Through Joint for MULTI-CORE PILC Cables upto 36 kV

Tests	Parameters	Test Voltage in kV			Observations
		12kV	24kV	36kV	
Impact	4 kg wedge dropped 6 times from 2 meter height	----	----	----	No visible damage
AC high voltage test	5 minutes	25	30	45	No breakdown or flashover
Impulse withstand test	10 +VE & 10-VE ,1.2 Micro second between conductor & screen grounded	75	125	170	No breakdown or flashover
Load cycling test	63 Cycles in air & 60 cycles under water, 5H heating.3H cooling with cond. temp.as per cable specification		at 2.5U <sub>o</sub>		No breakdown or flashover
DC withstand test	30 minutes	48	96	144	No breakdown or flashover

### Important Notice

Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use.

### Warranty; Limited Remedy; Limited Liability.

This product will be free from defects in material and manufacture at the time of purchase. **3M MAKES NO OTHER WARRANTIES**



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