

Metallic or polyethylene sheaths represent the most economical means to create voids in post-tensioned elements. They provide a good secondary protection against corrosion and a good connection between cables and concrete. The primary protection against corrosion is provided by the grouting alkalinity and by concrete itself, the secondary one by the sheath and its protective barrier to the cable.



26.1 - "ST" metallic sheaths



ST metallic sheaths are available in different versions. They are made of crimped sheet EN 10139 - 1999. They can be galvanized. Sheaths are available in bars having a length of 5.8 m. They are all provided with a sleeve screwed onto each bar.

ST metallic sheaths are available in the following types:

- **STB-CE** according to the CE marking to comply with EN 523-524,
- **STA** corrugated with a thickness of 0.3 mm.
- **STC** corrugated with a thickness of 0.4 mm.
- **STD** corrugated with a thickness of 0.5 mm.
- **STE** corrugated with a thickness of 0.6 mm.

26.2 - "SL" metallic sheaths

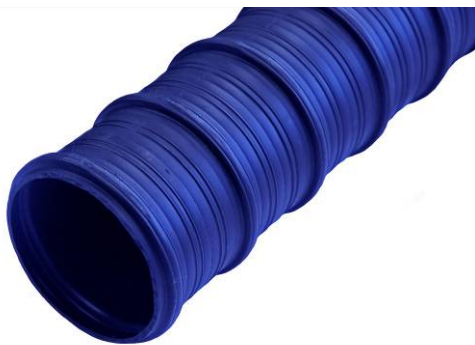


SL metallic sheaths are available in different versions. They are made of crimped sheet EN 10139 - 1999. They can be galvanized. Sheaths are available in bars having a length of 5.8 m. They are not all provided with a sleeve screwed onto each bar obtaining their connection by overlapping.

SL metallic sheaths are available in the following types:

- **SL-CE** corrugated with a thickness of 0.3 mm.

26.3 - "SP" polyethylene sheaths



SP polyethylene sheaths are available in several versions. They are made of extruded H.D.P.E. according to the FIB Specification, in bars with a length from 5.8 m. to 11.8 m. They are blue with a heat-shrinking sleeve on each connection.

SP metallic sheaths are available in the following types:

- **SPA** corrugated with a thickness of 2.00 mm.
- **SPB** corrugated with a thickness of 2,50 mm.
- **SPB** corrugated with a thickness of 3.00 mm.
- **SPD** corrugated with a thickness of 3.50 mm.

26.4 - "SPE" polyethylene flat sheaths



SPE-78x25x2 mm. polyethylene sheaths are made of extruded H.D.P.E. according to the FIB Specification, in bars with a length from 5.8 m. to 11.8 m. They are blue with a heat-shrinking sleeve on each connection.

SPE metallic sheaths are available in the following types:

- **SPE** corrugated with a thickness of 2.00 mm.



Heat-shrinking joint

The connection between polyethylene sheaths consists in heat-shrinking joints for the installation by specialized operators according to operating instructions.

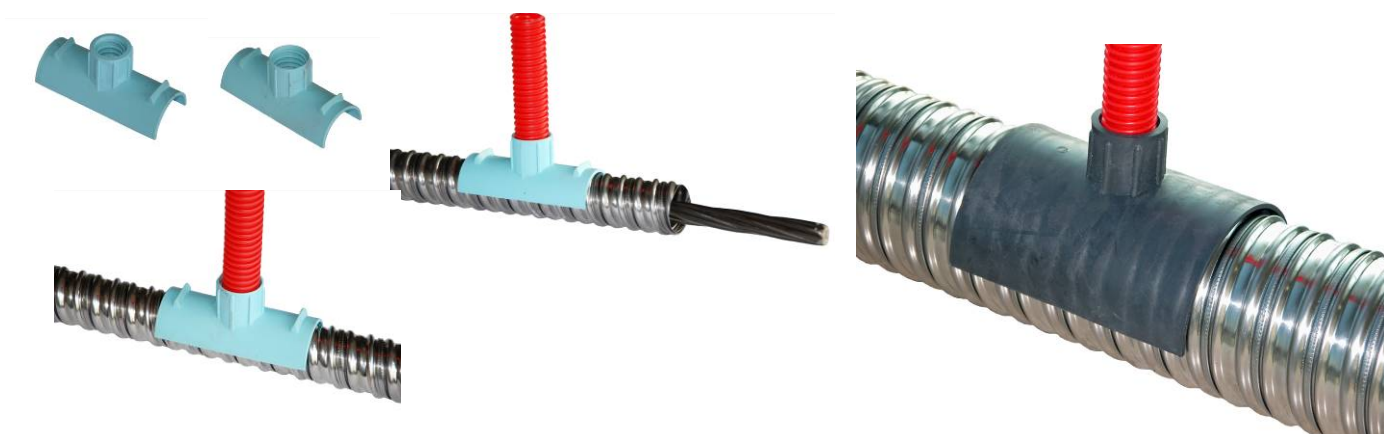
26.5 - Vents on corrugated sheaths



DD-1001 vent cover

The positioning of vents on corrugated on polyethylene sheaths allows to guarantee the correct discharge of air from tubes while grouting. They must be installed on every part of the cable where an air pocket may form while grouting.

The **DD-1001** cover is made of soft material to allow use with sheaths of every measure. It must be positioned with soft PVC.



Vent cover on metallic sheath

26.6 - T 50x25 soft PVC tapes



(Adhesive tape for sealing)

The **T 50x25** adhesive tape made of soft PVC allows a high-level sealing of the interested parts and allows to cover surfaces by respecting their characteristics. The tape also offers a high resistance to temperature variations and to abrasion.

26.7 - Diameter of corrugated sheaths suggested for use with T15 and T15S wire strands

Number of strands	Inside diameter	Grouting	Cement	Straight part after bending	Minimum radius
	(mm.)	Litres/meter	Cement Kg./meter	Minimum (mm.)	Minimum (mm.)
4	45	1.2	1.9	500	3,000
7	62	2.3	3.6	700	3,500
9	72	2.8	4.5	800	4,000
12	80	3.6	5.8	1,000	4,000
15	85	3.8	6.1	1,100	4,500
19	95	4.7	7.5	1,200	5,000
22	100	5.2	8.4	1,300	5,000
27	110	6.2	9.9	1,300	5,000
37	130	8.6	13.8	1,500	6,000