sealrad ®

SYSTEM FOR SEALING PIPES

THORNE & DERRICK INTERNATIONAL

Thorne & Derrick
+44 (0) 191 410 4292
www.cablejoints.co.uk

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ARE YOU FAMILIAR WITH ANY OF THOSE SITUATIONS?

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WHEN DO WE USE SEALRAD?

SEALING CABLE PIPES IS NECESSARY FOR:

1) Protect cables and equipment in case of water leakage and/or humidity.

2) It gives a safe enviroment for workers.

3) Avoid the risks associated with the penetration of gas and/or dangerous fluids at the workplace.

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WHEN DO WE USE SEALRAD?

FURTHERMORE:

4) It reduces time and cost due to the use of pumps for emptying the water and disinfestations in the workplace.

For Example: in areas of heavy traffic is very important to close the trap door of the room as quickly as possible.

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THESE PROBLEMS CAN BE AVOIDED WITH A SIMPLE AND LASTING SOLUTION:

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APPLICATIONS:

1) Seal conducts from seepage of gas and water in the nodes of the underground networks such as :

- Telephone networks
- Substations and electrical substations
- Cable tray

2) Suitable for plastic pipes, concrete and steel

3) Seal empty conducts or filled by one or more cables

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THE PRODUCT

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TECHNOLOGY

Sealrad consist of:

- An inflatable sealed envelope based of flexible laminate metal / plastic.

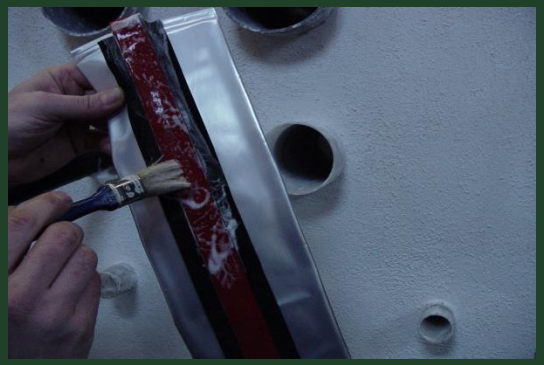
- Two strips of mastic sealant applied on each side of the envelope.

- Inside the envelope there are reagents which putted in contact, through a simple pressure using your fingers, it activates a natural reaction developing gas causing the swelling of the envelope.

INSTALLATION

Empty ducts or filled by 1 or 2 cables/wires:

Lathering strips of mastic, wrap around the cable, crush with two Fingers where indicated in the corner and insert into the conduct.

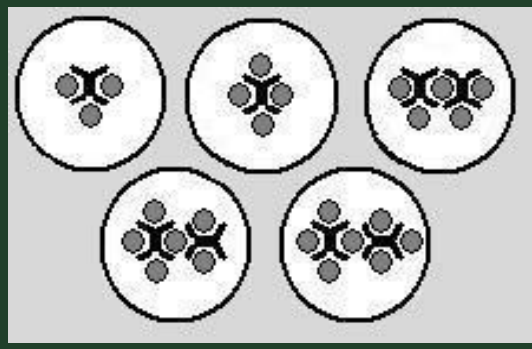





INSTALLATION

ducts with 3 or more cables/wires:

Insert between the cables a spacing diaphragm sealant (Sealclip)



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UNINSTALL

Pierce the envelope with a screwdriver and pull it out with pliers.

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PROS

• Is self-inflatable, so there is no need of installation equipments (ie. manual inflator, pressurized cylinder, etc.);

• There is no need to measure pressure and no pressure gauge;

•It does not produce residues to send to landfill;

• The operation does not depend on the skill of the worker or from the installation conditions.

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CHARACTERISTICS

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Quick and easy to install, clean and non-toxic

Applicable on cables with sheath in PVC, PE, Pb o Al.

Applicable to a wide range with a single size

It adapts to ducts that have a oval shape as well.

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CHARACTERISTICS

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It resists up to 5 meters of water column (0,5 bar)

Allows natural movement of torsion of the cables

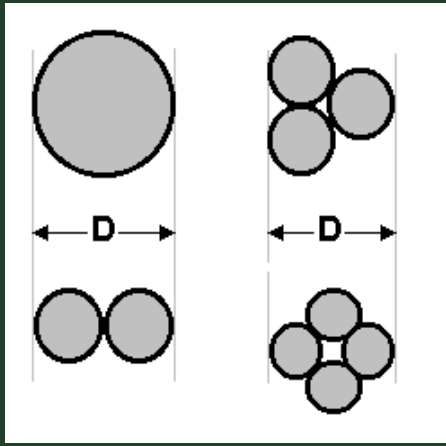
Resists environmental aggressions (Chemicals, bacteria, salt, mushrooms, etc.)

It's easy to remove

SELECTION TABLES

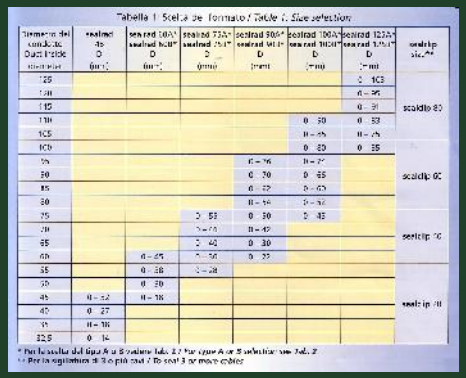
1) Measure the inside diameter of the pipe

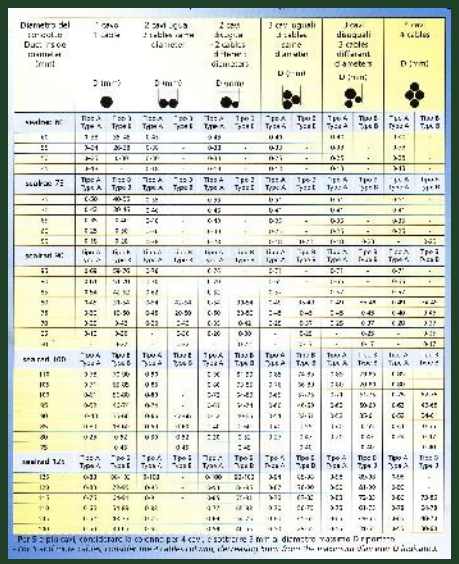
2) If the tube is not empty, measure the diameter D of the wire or the wiring harness



SELECTION TABLES

4) Choose the appropriate size in Table. 1. In case of a bundle of 3 or more cables subtract from DMAX, 5 mm for each Sealclip to use.





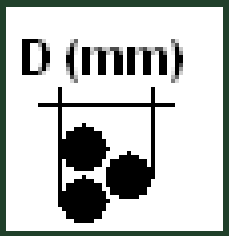
5) The suitable Seaclip have to be chosen based on the diameter of the Conduct, according to the Table 1.

6) Depending on the particular configuration of the cables, the choice should be completed distinguishing between type A and B, by consulting the Table. 2

SELECTION TABLES

EXAMPLES:

In a conduit with an internal diameter of 100mm, are present 3 cables Unipolar Umax = 15kV, XLPE insulated, non-armored, section of 120mm2



The diameter D of the bundle measured is approximately 65mm

Since it will be use a Seal Clip, in Table 1
We should subtracted from the values D 5mm maximum indicated.
Therefore, in correspondence with the diameter of the conduct 100mm, it can be used only the Sealrad 100, which can accommodate all cables or bundles between 0 and 80mm footprint. The size of the Sealclip, is always obtained from Table 1, according to the diameter of the conduct (Sealclip 60).

Finally, in Table 2, in the section relating to the Sealed 100, in correspondence with the diameter of the duct 100mm, and of the combination of three cables equal, it turns out that a beam with D = 65mm, can be sealed either with a Sealrad 100a (which seals 0 <D <69) that with a Sealrad 100 B (which seals 57 <D <75)

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TYPE TESTS

Specific: LN 584 for Duct Seal 1 British Telecom plc

Axial tension

Temperature: 23 ± 3 ° C; Distance: 10 x D (cable diameter);
Load D / 2 x 10N; Duration: 4 hours

Bending

Temperature: 23 ± 3 ° C; Distance: 10 x D;
Bending: 45 degrees; Duration: 5 minutes

Torsion

Temperature: 23 ± 3 ° C; Distance: 10 x D (min 250mm);
Strength: D / 2 x 10 Nm (max 50 Nm); Duration: 5 minutes

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TYPE TESTS

Specific: LN 584 for Duct Seal 1 British Telecom plc

Vibration

Temperature: 23 ± 3 ° C; Distance: 10 x D (min 250mm);
Vibration: 10Hz; 6mm peak to peak; Duration: 10 days

Water Column

Temperature: 23 ± 3 ° C; 5 meters of water;
Duration: 30 days

Chemical Resistance

Temperature: 23 ± 3 ° C;
Plunges the product in solution; Time: 30 Days.

Thermal Cycles

20 thermal cycles between -15 ° and + 30°C

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THANKS FOR YOUR ATTENTION

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