BPA
WATERPROOFING SYSTEMS

CEM11 INJECTION TUBE

sealing of construction joints in concrete structures and tunnelling constructions, for multiple injection

PRODUCT DESCRIPTION

CEM11 Injection Tube is a single walled, PVC tube which economically provides a high efficacy joint sealing system. The CEM Injection Tube is designed with conical shaped apertures which provide the outlets to enable the pressurised injection material to enter the concrete matrix and seal the joint.

APPLICATION AREAS

The CEM 11 Injection Tube System may be used for sealing construction joints in below-grade concrete structures, civil engineering, and tunnelling. CEM11 Injection Tube can be used for sealing of all forms of construction joints which are permanently or occasionally exposed to loads due to subterranean, down-the-slope or surface water. Using the CEM11 Injection Tube System construction joints which are required for structural engineering reasons can be designed non-positive and watertight.

HOW DOES CEM11 WORK?

Due to the geometry of the apertures in the CEM11 Injection Tube the outlets remain closed, preventing the ingress of cement paste or fines into the transport duct, thus providing a reliable passage for the injection material. The smooth surface of the Tube prevents any unwanted bonding between the concrete and the outer surface of the Tube. The CEM11 Injection Tube is suitable for use with any favoured injection materials and its smooth, non-adhering surface gives the CEM11 Injection Tube the ability to be used for remedial injection treatments.

CHARACTERISTICS AND ADVANTAGES

- Single-wall PVC Tube with conical openings and slots from inside to outside. The openings are positioned North-South, East-West
- Multiple injections possible when using acrylate-gel or PU-gel
- Easy handling and easy to install
- Advanced design ensures even distribution of injection medium within the joint
- Unique design prevents the fresh concrete paste from entering the system
- Circular Tube – no unwanted twisting during installation
- Smooth surface on the Tube to prevent bonding between the Tube and the concrete.

APPROVALS

General Building Code Test Certificate (abP)

PRODUCT DATA

	CEM11 Injection Tube	Article-No.
Dimensions/ Packaging	Roll of 50 m // Pallet of 50 rolls/ 2.500 m sealed in tight shrink film Colour: blue	10-300
Storage	Shelf life 5 years when stored clean, dry and shaded from sunshine in temperatures >5°C	

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TECHNICAL DATA

Working Material	PVC
Inner Tube diameter	6 mm
Outside diameter of the Tube	11 mm
Materials that might be injected	PU / EP Resins, Acrylates, Gels -no cement-
Maximum length for installing Tube	Max. 10 m Please consult our Technical Department for advice
Perforations	5 mm
Slots in Tube	every 12 mm to 14 mm; 24 slots per 10 cm
Weight	106 g/m

ADDITIONAL INFORMATION

Injection Tube CEM11 is easy to install when the following instructions are observed:

- Lay the Tube along the middle of the joint.
- The connection between ventilation and injection hoses and the CEM 11 Tube must be completely embedded in the concrete.
- The CEM 11 Tube must be well set on the cold joint and be fastened in place with Tube clamps at intervals of approximately 15 cm (depending on the state of the joint).
- The overlaps should be roughly 10 cm.
- The ends of the injection and ventilation hoses must be laid neatly and to the outside of the formwork, so they can be easily retrieved. (Attention must be paid to good accessibility and ease of injection later on!)
- There are two options:
  1. Installation of the injection and ventilation hoses with shuttering connectors with foam rubber and rebar holders
  2. Injection and ventilation hoses installed in a bushing:
  3. Fasten the injection and ventilation hoses securely to prevent them being pulled out of the bushing during concreting.

General advice

Service temperature: minimum -5°C (The mentioned temperatures constitute the generally valid area in which no additional measures need to be taken during application.)

Environment and health

This product does not represent a hazardous substance within the meaning of the EU Hazardous Substances Regulation. A safety data sheet for transport, placing on the market and use is available on the request.
Dangers and Safety The essential safety, toxicological, physical and ecological data for the handling of CEM 11 can be taken from the product-specific safety data sheets.

Data

All technical data stated in this product data sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

Legal advice

All above mentioned Information concerning BPA - products, especially any recommendations and advices relating to the application and use of BPA products are given in good faith based on BPA´s current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with BPA's recommendations.

In practice, the differences in materials, actual site conditions and other factors outside are such that no warranty nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered.

The user of the product must test the product's suitability for the intended application and purpose before proceeding with the full application of the products. BPA reserves the right to change the properties of its products without notice.

Users must always refer to the most recent issue of the Product Data Sheet for the product concerned, copies of which will be supplied on request. All sales of BPA are subject to our current terms and conditions.

Local Restrictions

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local product data sheet for the exact description of the application fields.