

CTS-Anchor

Die **CTS-Anchor** seal is an integrated solution being directly cast-in to the concrete tunnel segment. In laboratory testing it delivers a similar water-tightness performance than the glued-in **CTS-Standard** seals. Under the rough circumstances encountered in practical application the **CTS-Anchor** seal helps reducing the risk of leakages resulting from improper workmanship involved with the gasket installation & gluing procedure. Compared to the conventional glued-on seal the anchored seal it provides a fivefold stronger bonding to the concrete and the risk of water penetrating underneath the gasket is decisively reduced due to the form-closed double barriers created by the two anchoring feet. With these improvements concerning sealing performance and security the **CTS-Anchor** seal offers decisive economic and environmental advantages with regard to the processes in the segment production plant.

Benefit

- Saving of gluing procedure, purchase and storage of all materials needed for gluing. (Adhesives, spray guns, pressing frames, hazardous goods store, etc.)
- No pollution by solvents and therefore no health and safety measures including ventilation systems, etc. required
- No costs for recycling of used adhesive tins
- Reduction of process times for the gasket frame installation procedure by more than 60%
- No pre-working measures such as gasket groove repair required on segments before gasket frame installation.

All **CTS-Anchor** seals are supplied as ready corner-vulcanized and project specifically tailor-made gasket frames. The profile geometry and also the procedures used for the project-related water-proofing performance and load-deflection behavior testing follow the recommendations of recognized institutions such as, e.g. STUVA (GER), AFTES (F), and BTS (UK).

The gasket installation

The **CTS-Anchor** seal is directly clipped into a specially designed gasket groove around the inner side of the tunnel segment casting mold.

The tunnel segment installation

To obtain a proper seal, care must be taken to insure the gaskets are not damaged during installation. For the insertion of the key stone segment CTS recommends using the **CTS-Teco-Lube** on the gasket frames.

The material

The **CTS-Anchor** seals are made of a high quality EPDM Compound that meets the material requisition recommended by STUVA.



In case of special requirements concerning chemical resistance when used in extremely contaminated ground CTS offers alternative materials (e.g. CR/SBR elastomer for better resistance against hydrocarbons found in ground water). This alternative material can be offered as a reasonable compromise, but always under consideration of lowering the typical and physical properties of an EPDM-Compound with regard to aging performance and longevity.

CTS-Anchor (geometry and dimensions)

Groove design:

Profile:

26 x 10 mm



33 x 10 mm



36 x 11 mm



44 x 12 mm

