Technical data sheet – RubberElast®

Product description

RubberElast® is a compression sealing tape for precast elements. The self-adhesive RubberElast® is simply affixed onto the joint flank of the first component. During the assembly of the next component, the sealing tape is compressed in the joint, thus sealing the resulting joint up to a water column of 5 m.

Product features

::: Very easy to process
::: Installation without further aids or tools
::: Waterproof immediately after assembly
::: Flexible even at low temperatures
::: Weather resistant
::: Tested to be water tight up to a water column of 5 m
::: Resistant to acid, alkali and salt
::: Can be combined with other Elast products

Areas of application

::: For sealing joints between precast concrete elements
::: For sealing of joints between all kinds of precast elements

Product data & delivery form

5002052 RubberElast® 17 mm x 17 mm
5002053 RubberElast® 25 mm x 19 mm
5002054 RubberElast® 32 mm x 25 mm
5002055 RubberElast® 38 mm x 32 mm
5002056 RubberElast® 48 mm x 42 mm

Substrate preparation

Substrates must be firm and load bearing, as well as free of dust, grease, oils and other separating materials. The substrate must be dry during assembly. On difficult substrates we recommend to use the RubberElast® primer in addition, in case of doubt we recommend to make a preliminary test.

Processing

::: **General installation instructions**

RubberElast® is laid directly from the roll, with the protective foil facing upwards, onto the surface being jointed and pressed on firmly along the entire length. In corners, the sealing tape is bent into the required shape before being pressed on. To extend the RubberElast® tape, the ends should be cut diagonally (30° to 45°) so that these are bonded on top of each other after pressing them together without increasing the cross-section of the tape in the connection area. For cutting we recommend a sharp blade, which is to be dampened before cutting. (Cut, do not press). Before placing the next component, the protective foil must be removed and a check must be carried out to ensure that the sealing tape is fixed firmly and immovably in the desired place. Immediately afterwards, the next precast concrete element in the joint area is pressed against the sealing tape so that it can stick to the latter.

In order to achieve an optimal sealing effect with RubberElast®, it must be ensured during assembly that the sealing tape has actually been compressed by 70 % to 90 % of its original height along the entire joint. The joint can be checked for tightness and exposed to water directly after assembly.

::: **Assembly of complex components**

For precast walls and complex components, RubberElast® is to be installed as described above. In corners and corner connections, the sealing tape must be bent into the required shape before being pressed on. The next component is then to be positioned, for instance still suspended on the crane. Existing components with RubberElast® are to be protected e.g. with wooden slats so that the new component can cease swinging. Only then the protective foil is removed and the component can be assembled. Initially, the width of all joints is to be reduced so far that the compression of the RubberElast® is around 50 %. The further lowering and reduction of the joint width to the existing components should take place at the same time, so that the new component slowly slides into the corners and the compression of 80 % is only achieved at the end of the assembly.

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Notes

When using RubberElast® for sealing joints between precast concrete elements on components made of waterproof concrete according to the "WU-Richtlinie" (DAfStb Guideline of waterproof concrete structures), the general building authority test certificate must also be observed.
Particularly on horizontal joints, bear in mind that the RubberElast® tape is a sealing tape and is NOT used for load transmission. This must be ensured using other suitable measures if need be. To prevent the sealing tape from being destroyed, the joint width must not be less than 2 mm at any place and at any time.
The RubberElast® height for the optimal sealing effect down to a water depth of 5 m after a compression by 80 % is:

Product	RubberElast® height
RubberElast® 17x17	3.4 mm
RubberElast® 25x19	3.8 mm
RubberElast® 32x25	5.0 mm
RubberElast® 38x32	6.4 mm
RubberElast® 48x42	8.4 mm

At low temperatures, the assembly can be made easier by storing the RubberElast® material in a warm place (room temperature) if possible until immediately before being assembled. To make the process even easier, the surface of the component can also be heated up in the joint area.
For other applications we recommend carrying out a preliminary test in case of doubt and contacting our application technology department to clarify any questions.

Storage

indefinitely storable in a cool and dry environment

Packaging

Size (width x height in mm x mm)

17 x 17	4.50 m/roll	8 rolls/carton
25 x 19	4.40 m/roll	6 rolls/carton
32 x 25	4.40 m/roll	4 rolls/carton
38 x 32	3.20 m/roll	4 rolls/carton
48 x 42	2.25 m/roll	3 rolls/carton

45 cartons/pallet

Technical properties

Colour	black
Consistency	elastoplastic
Main component	rubber compound
Processing form	Self-adhesive on rolls with protective foil
spec. density	approx. 1.3 g/cm³
Compressive strength	1.39 N/mm² (in case of fast compression by 80%)
Adhesive tensile strength	> 60kPa (on concrete)
maximum joint displacement	≤25.6 mm (size 38x32 at 50 % compression) ≤ 7 mm (size 38x32 at full compression) ≤ 3 mm (size 17x17 at full compression)
Temperature resistance	-40°C to +60°C
Processing temperature	-10°C to +40°C (component and material temperature)
Chemical resistance	H_2SO_4 (pH 4) - acid, liquid aggressive to concrete $Ca(OH)_2$ (pH 12) - alkali NaCl - salt

The information in this data sheet has been provided with care based on our experience and the respective known state of science and technology, but is not binding. They must be adapted to the respective building object, intended use and the particular local loads. Given this, we ask for understanding that we limit our liability for the information provided in this data sheet and do not assume any liability in case of intent, gross negligence or breach of the instructions. In any case, the accepted rules of technology must be complied with.

Issue 09/19 – This data sheet has been technically revised. Previous issues are not valid, if a new issue has been technically revised, this issue loses its validity. Please make sure that you are in possession of the latest issue.