INSTALLATION INSTRUCTIONS FOR TUNNEL GASKETS WITH CONTACT ADHESIVE AND SPRAY GUN

Instructions
INSTALLATION INSTRUCTIONS FOR DATWYLER TUNNEL GASKETS WITH DATWYLER CONTACT ADHESIVE USING SPRAY GUN TYPE PHOENIX 11032 AND PNEUMATIC PRESSING FRAME.

**Remarks**
The installation procedure described here should be understood as a guideline and could vary depending on the project requirements or local conditions.

**Delivery**
All sealing profiles are delivered as corner-vulcanized gaskets tailor made for the individual segments. They are packed in skidded cartons.

**Preparation**
Segments and gaskets have to be kept dry and free from dust, grease or oil residue. The adhesive should be stored at a temperature between +15°C and +35°C (59°F - 95°F). Avoid direct sunlight. If the adhesive is jellied due to temperatures below 15°C (41°F) it is possible to warm up the adhesive to +20°C with a water bath (no direct heat is allowed to warm up the adhesive) to be able to work with the adhesive.

**Working Temperature**
The adhesive can be used at temperatures up to +35°C (95°F). The adhesive pails have to be kept covered during the installation in order to avoid vaporizing of solvents and forming a skin on the surface. The adhesive has to be stirred constantly during installation. The temperature of the segment should be above +10°C avoiding condensation.

**Preparation prior to Installation**
Some hours prior to installation it is recommended to unpack and keep the gaskets in a position that the side lengths are straight and relaxed. After transportation and storage in cold conditions (winter time) the gaskets should be unpacked and stored in warm condition at least one day prior to installation. Dirty or dusty gaskets should be cleaned with Datwyler cleaner.

**1 GROOVE CLEANING**
The groove has to be dry and free from dust, grease or oil residue. Dust could be blown out of the groove with the spray gun (air supply only).

**2 APPLYING OF ADHESIVE**
The adhesive has to be applied with a spraygun which is specially designed to apply the Datwyler adhesive in the form of “hairs”. The spraying process should not take more than 5 minutes for one segment. It is important that the adhesive is evenly applied into the groove bottom and onto the side walls. The side walls are the main contact area for the bonding process.

**3 APPLYING GASKET INTO THE GROOVE**
Prior to installation of the gasket into the groove it should be positioned somewhere on top of the segment and nearby the groove so that it can be quickly and easily pushed into the groove once the wet bed of glue has been applied.

**4 GASKET INSTALLATION SHORT SIDE**
Two workers should start with placing the corners and short gasket sides into the groove simultaneously. The process should be started with the correct positioning of the corners and pressing the gasket into the groove by hand.

**5 GASKET INSTALLATION LONG SIDE**
The gasket should be placed into the groove by hand from the center towards the corners.

**6 CONTROL OF GASKET CORNERS**
It is recommended controlling the correct fit of the gasket after placing the corners and short gasket sides into the groove. In case that the corners are not in the correct position the gasket has to be adjusted to the correct fit. The position could be adjusted by pulling off the gasket and replacing it in the correct position.

**7 FIXATION OF GASKET FRAME**
The gasket frame has to be fixed into the groove with a pneumatic pressing frame. The pressing frame should compress the gasket for at least 7 minutes. It is important that the pressure is applied equal over the entire gasket frame. The pressing frame is not allowed to change the position of the gasket in the groove. The right pressure to be applied by the pressing frame depends on the size and weight of the sealing gasket. 5 bar is an average value for the recommended pressure. After 3 days storage at room temperature the bonding will reach maximum strength.

**8 CONTROL**
After the installation of each gasket the position of the corner should be controlled. The gasket corner should be in line with the segment corner. Also the correct positioning of the complete gasket in the groove should be checked.
Certification according to DIN EN ISO 9001 and DIN EN ISO 14001