

## Plastic Injection Packers



# ASSEMBLY AND USE

## Types and purpose

This is a brief description of Hammpack® plastic packers. We will explain how and where to use plastic packers.

An injection packer is installed in a sealed element and is designed to introduce an injection under pressure. All injection packers are equipped with check valves, so that the pressure of the introduced injection can be stopped within the structure.

For more information on injection packers, check out "ResinBau - Injection Packers". Additionally, for a description of how to properly drill injection holes, see "ResinBau - Proper Drilling Techniques".

*Thank you to the Hammpack® brand for providing marketing materials and assistance in creating this description.*

- ❖ **Plastic injection packers** - drive-in packers, perfect for low-pressure work (for maximum pressures of 20 to 60 BAR depending on the type of packer). Low opening pressure of the valve (gravity valves / or valves with zero-pressure sliding attachments). Depending on the type, plastic packers are suitable for saturating structures, curtain injections, cement injections, water solution injections, silicates, injection resins, and acrylic gels. Remember to use a special hammer when installing plastic packers. Hitting the head without a hammer can distort the valve and cause valve leakage. Among the plastic packers, we can find packers with diameters ranging from ø6-18mm, with different attachments and flow rates.

## Assembly / disassembly of plastic packers

- ❖ The injection hole should be cleaned with pressurized water (ideally using a long tube inserted to the end of the hole, through which water will flow under pressure - flushing out the entire borehole).
- ❖ The packer should be placed in the injection hole (the diameter of the packer given by Hammpack® should match the diameter of the injection hole).
- ❖ The packer should be driven into the injection hole using a hammer and a designated driving tool (directly hitting the packer can lead to damage or leakage).
- ❖ Drive the packer into place with the appropriate force, using a rubber mallet (or a rotary hammer drill if using an SDS+ tool).
- ❖ The appropriate force of insertion depends on several factors (the type of packer, the building material, the quality of the borehole, the angle of the borehole, etc.). We recommend starting by lightly tapping the first few packers and checking if they hold the desired pressure. If they are leaking, they should be tapped with greater force to hold the desired pressure. After this test, you will know how firmly to insert the packers and can do so repeatedly and quickly. Remember that you can always tap the packer more firmly, but if you use too much force, the packer's leaves may crack and it will no longer hold pressure.
- ❖ Plastic packers are often made from materials that are susceptible to moisture accumulation. If you require the flaps to be more elastic, you can leave the packers in water for 24 hours before use.
- ❖ In case of long boreholes in soft materials, where the holes expand excessively, progressive diameter packers like PI-P 12-15/84f can be helpful.
- ❖ Disassembly of the injection packer should be done after the complete binding of the injected material (24-48 hours after injection).
- ❖ The easiest way to remove the packer is with a crowbar (pulling it out in one piece).