



SILICONE JOINTS IN POOLS - TECHNICAL INFORMATION

JOINTING OF SWIMMING POOLS - PROCESSING, MAINTENANCE, REFURBISHMENT

Elastic joints for underwater application need to be resistant to extreme weather stressors. Therefore, great care should be taken to select and apply the protective materials to obtain a long term functional joint.

MAXISIL provides a special silicone for the jointing of swimming pools which meets the highest demands: **Maxisil Pool**.

PROCESSING

Some conditions must be met before jointing can be done:

Firstly, the dimensions and arrangements of elastic joints should be designed in a way that movements (compression and extension) of up to 25 % of the width of the joints can be compensated.

The width of the joints should ideally be between 10 and 15 mm to be able to compensate movements adequately. A joint of 12 mm, for example, will have a practical movement capability of up to 3 mm.

It is necessary to limit the depth of the joint to 6 to 8 mm by using suitable filling materials. By doing so, an adhesion on three flanks is avoided.

Suitable filling materials are foils of polyethylene preventing adhesion with the silicone or a backing rod. We recommend a PE (polyethylene) backing rod for underwater applications, as cells are closed and water-repellent.

Secondly, to ensure adhesion of **Maxisil Pool** to the flanks of the joint, these have to be cleaned thoroughly. All loose dirt, residues of mortar as well as oily and greasy stains have to be removed. The flanks of the joint have to be dry as moisture on the flanks' surface has the effect of a releasing agent, causing the silicone sealant to break away from the joint.

Thirdly, having prepared the joints as described above, a treatment of the dry flanks with a suitable OTTO Primer* should take place, especially on joints that will be underwater.

After allowing OTTO Primer* to flash off, **Maxisil Pool** is applied to fill up the joints minding that the flanks have to be amply covered. Please note that any excess sealant should be removed within approximately 6 minutes before skin formation occurs. Removal should be carried out with a smoothing tool moistened with an appropriate smoothing agent. **Maxisil Pool** has a curing time of 4 days preferably two weeks.

OTTO Primers* are a one-component epoxy resin solution which should be shaken well before applying undiluted with a paintbrush on the flanks of the joints only. In order to avoid the primer staining the edges of the joint, cover the visible edges.

*OTTO Primer selection will depend on substrate: Concrete 1218, Fibreglass 1217, Stone 1218, Steel 1216 or Rubber 1215.

MAINTENANCE

Maxisil Pool is equipped with fungicides to prevent forming of microorganisms. The fungicidal protection has to be supported by a permanent addition of chlorine to disinfect the water. Certain procedures have to be complied with to run a swimming pool correctly in order to keep the number of microorganisms contained in the water low. This helps to avoid the possible forming of mildew on the sealing material.

An extensive circulation of the complete water volume is of particular importance as insufficient water circulation equates to areas that have an insufficient disinfectant. A constantly low concentration of disinfectant inhibits the formation of mildew.