



*Performance Through
Technology and Service*

Date Issued	October 2023
Replaces	

INFO SHEET

Expansion/Control Joints in Swimming Pools

Oct 2023

Many larger pools have these across the bottom and up the sides of the pool to allow for relative movement between various parts of the pool's structure. Often the pool moves due to subsoil drying out in droughts and with the weight of water in the pool, movement needs to be absorbed correctly else the concrete will crack uncontrollably.

Many pools are also formed in sections, and these shrink a little on curing, so the control joint allows this to take place without problems.

A control joint needs to be correctly formed in cross section to handle the expected movement, the water pressure and the effect of chemicals and temperature during its life.

A well-formed and installed joint can be expected to last 10 -15 years. A poorly designed one or one with the incorrect materials may fail within a few years, resulting in water loss and the need to empty the pool and undertake costly repairs.

In general, a well-formed control will be approximately 20 – 50 mm wide and from 10 – 25 mm deep. It will generally be designed so its width is twice the depth, (say 30 mm wide and 15 mm deep) though sometimes may be reduced to width being 1^{1/2} times depth. (Say 22mm wide and 15 mm deep).

All joints will need a means to control depth, usually requires a rigid joint filler (such as Parchem Hyrocor) and will need the vertical edges of the joint ONLY to be primed with say Parchem Primer #13.

In pools Parchem Emerseal CR may be used. It's a single pack sealant.

Follow the manufactures' design and application details for a satisfactory outcome.

A few general pointers:

1. Joint or opening should be clean and dry and free of all contaminates, loose materials, dry, and free of water or frost.
2. To install, compress the backer-rod into the joint before sealants are applied. Install backer-rod using a blunt tool or a plain faced roller.
3. Force the rod to the depth recommended by sealant manufacturer, (typically about 1/2 of joint width measured at the crown of the backer rod). A template or roller gauge may be used to control the depth at which the rod is placed.
4. Don't stretch, puncture or tear backer-rod during installation but gently force into the joint so that the backer-rod fits tight against the sides of the joint. Use a backer-rod roller or smooth tool to set the backer rod to proper depth.

Priming:

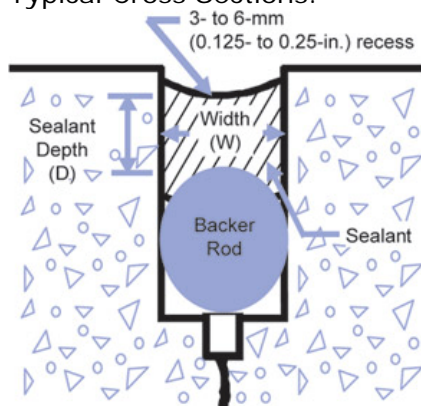
1. If joint priming is needed, follow suggestions for joint-sealant application as directed by sealant manufacturer.
2. Where necessary, primer should be applied only to the edges of the joint surface and allowed to dry **before Backer-Rod is placed**. DO NOT prime Backer-Rod.

Applying Sealants:

1. Where priming of the surface material is necessary, primer should be applied only to the sides of the joint surfaces and allowed to dry tack-free **before** the Backer-Rod is placed. **DO NOT prime the Backer-Rod**. Many primers ARE STAINING, be careful where they are applied.
2. Follow suggestions for joint-sealant application as directed by the sealant manufacturer.
3. As needed, tool to desired shape using a caulking tool or old spoon. **Hint:** For polyurethanes, wet the tool regularly with water or toluene to enable a smooth surface. Soapy water is not recommended as some soaps can interfere with joint bonds.
4. Most products need 24 hours minimum cure before applying any type of over-coating. Follow the manufacturers recommended cures.

HINT: For those not who are not professional applicators, use masking tape on surfaces where you do not want sealants. It is **very** difficult to remove from unwanted areas.

Typical Cross Sections:



When to paint the pool?

There are 2 possibilities, before or after applying sealant.

- Before applying sealant; means you need to make sure all correct preparation is done for the sealant first. And then follow preparation for painting the pool. After paint applied*, right to the edge of the joint, and FULLY cured, then carry out sealant application. Mask the edge to stop sealant adhering to the paint, and make sure the paint is NOT damaged (who repairs if it is?) Then carefully remove masking tape as soon as sealant applied, being careful not to lift or damage the paint. The sealant needs to butt to the paint **exactly** to prevent moisture – pool water getting under the paint and lifting it.
- After applying Paint; means you need to prepare both the surfaces to be painted and the sealant areas, first. Then mask edges of the joint and prime vertical surfaces and apply sealant. Allow to cure correctly. Remove masking tape as soon as possible. Clean surfaces to be painted, removing ALL contamination. Apply masking tape in the middle of the cured sealant, such that about 2 – 4 mm of the sealant is exposed at each side. (e.g. 20 mm wide joint has masking tape 12 – 15 mm wide) Mix and apply the paint* system and allow to cure, painting onto the masking tape to provide a water tight seal. Carefully remove the masking tape and ensuring you don't remove any paint outside of the masked area.
- * Follow Application Notes for the PaintNForget system.

Not sure of the process contact us or the sealant supplier for more details.