

Frequently asked questions about Alcolin Expansion Joint Sealer

1. Why is an expansion joint important?

Expansion joints compensate for dimensional instability in your substrate, and allow for expansion and contraction of building materials, as well as absorbing vibration and allowing movement due to ground movement. Failure to include expansion joints in the design would result in walls and floors cracking, tiling systems would fail, and structural designs would weaken.

2. Why is the new hybrid MS silicone technology different from that of normal acid curing silicones?

Alcolin Expansion Joint Sealer is a hybrid MS silicone. It has the following advantages over acid curing silicone:

- i. It is paintable
- ii. It bonds to damp surfaces
- iii. It is acid free
- iv. It is odourless
- v. It does not stain natural stone
- vi. Provides good adhesion without priming
- vii. No need for hazard label

3. How do I clean up Alcolin Expansion Joint Sealer?

A cloth soaked in acetone, alcohol or mineral spirits should do the job prior to drying. Once dried, scraping or sanding works well, alternatively, use a solvent based paint stripper. It is best to clean the glue before it dries.

4. What is the maximum width joint that can be sealed with Alcolin Expansion Joint Sealer?

Maximum width joint is 25mm. Sealant should be applied to a depth of 13mm for such a joint width.

5. What is the movement accommodation of Alcolin Expansion Joint Sealer?

25% movement accommodation.

6. Why should the minimum width of the expansion joint be five times the maximum movement expected in the joint?

If the maximum movement expected in a joint is 2mm, and your joint width is 7mm, the joint movement will be approximately 28.6% which would exceed the movement accommodation value of a typical expansion joint sealer, resulting in failure of the joint. In the above example, if the joint was designed five times wider than the expected movement, the joint width would be 10mm. The joint movement would be 20%, which falls within the movement accommodation of the typical expansion joint sealer, with some safety margin.

7. What does the movement accommodation value mean?

This is the amount of movement that a sealant will accommodate. For a value of 25%, this means that a sealant width of 10mm will accommodate a maximum joint movement of 2.5mm.

8. How do I use Alcolin Expansion Joint Sealer?

The most important thing to understand when working with expansion joints is what the maximum expected movement will be. The width of the expansion joint should be at least 5 times the maximum expected movement, else the Expansion Joint Sealer will not have ability to accommodate this movement. The minimum joint width that the Alcolin Expansion Joint Sealer should be applied to is 5mm, and the maximum 25mm. Sealing depth will be chosen depending on the width of the joint. For widths greater than 16mm, the depth must be equal to half the width. The following table (value in mm) should be followed:

Sealing width /depth ratio

WIDTH	5/6 mm	7/9 mm	10/12 mm	13/16 mm	20 mm
DEPTH	5 mm	6 mm	7 mm	8 mm	10 mm

It is necessary that a filler material or bond breaking tape is used in order to avoid adhesion of Alcolin Expansion Joint Sealer to the bottom of the joint which would exercise unnecessary tension on the sealant reducing its performance. Regulation of its depth is then achieved as well as greater yields. Closed cell polyethylene foam-backing strip is suitable as a backing material and is available in a variety of widths to match most joint widths.

When applying the sealant, apply in a continuous bead to the prepared joint. Use masking tape to get a clean, even sealant line and to eliminate cleaning difficulties on porous surfaces. Be sure to remove the tape before sealant begins to skin. Smooth down after application before skin formation occurs, by using a flat or rounded tool.

9. I was advised to use a polyurethane sealant but I am worried about the hazardous isocyanates it gives off. What else can I use?

Alcolin MS 37 1000 Uses, Alcolin Expansion Joint Sealer, and Evo-Stik Sticks Like are new hybrid MS polymer silicone technologies that perform similarly to polyurethanes, however are isocyanate-free and have additional advantages of having superior UV resistance, curing faster at low temperatures, bonding to damp surfaces, and being odourless.

10. We are looking for a sealant that can be placed on damp concrete?

Alcolin MS 37 1000 Uses, Alcolin Expansion Joint Sealer or Evo-Stik Sticks like are MS polymer hybrid silicone technologies that bond to damp concrete and since they are acid free will not attack the concrete. Curing rate may be longer than indicated due to the dampness.

11. Does Alcolin Expansion Joint Sealer contain acid?

Alcolin Expansion Joint Sealer is neutral curing and is acid free and isocyanate free and will not attack concrete, plaster and the foil backing of mirrors. It will not cause rusting or corrosion on unprotected metals such as iron and copper.

12. What mileage can I expect from a 280ml cartridge of Alcolin Expansion Joint Sealer?

Use the following formulation:

$$L = \frac{280}{W \times D} \quad \text{Where: } L = \text{Length of sealant in metres obtained per cartridge.}$$

$W = \text{Width of the joint in mm}$
 $D = \text{Depth of the joint in mm.}$

A joint of 5mm width and 5mm depth yields approx. 11.2m per 280ml cartridge

A joint of 4mm width and 4mm depth yields approx. 17.5m per 280ml cartridge

13. Can I paint over Alcolin Expansion Joint Sealer?

Yes you can, however be aware that if used in an expansion joint, the paint will probably not have adequate flexibility and will craze.

14. Must Alcolin Expansion Joint Sealer be used with a primer

For most applications Alcolin Expansion Joint Sealer does not require a primer.

15. Can Alcolin Expansion Joint Sealer be used for applications permanently under water?

No, it is not suitable for such applications.

16. What adhesive would be most suitable to bond a structure that is vibrating continuously?

One needs an adhesive that offers the flexibility of a sealant and the adhesion performance of an adhesive. Alcolin expansion joint sealer and Bostik build are ideal for this application. Alcolin MS37 1000 Uses, Evo-Stik Sticks Like and Alcolin Polyurethane adhesive and sealant will also work well for less severe vibrations.

