

Concrete Floors

– Treatment of Floor Joints

Floor joints are recesses in concrete floors that allow the floor to move without causing unwanted cracks. Concrete can move due to a range of circumstances and environmental conditions, examples include:

- Shrinkage of the concrete as it ages.
- Sub-floor settling.
- Temperature fluctuation: concrete expands as it warms up and contracts as it cools down. This occurs daily in unconditioned spaces and in exterior exposure through the seasons.
- As the concrete cures and develops full substrate properties.

Therefore, to prevent cracks from developing randomly and destructively developing cracks across the floor, “control joints” are created to control (or limit) the cracking to straight lines. Control joints may be created when the concrete is still wet, or can be cut into the newly cured concrete with a saw.

If the floor joint is left unsealed, small stones and other contaminants may fall into the joint, restricting movement. This restriction in movement may cause the edge of the joint to break off, causing damage to the joint. Open joints can also be a trip hazard to those wearing narrow heels or cleats on their shoes.

The use of a high-performance floor joint sealant not only prevents stones and other hard objects from entering the joint, but also keeps the joint free of spills, while allowing the joint to move and flex during the day and across seasons.

Coating Over Floor Joints

Joint sealants need to remain elastomeric in order to continue performing their desired function of allowing the concrete to move and flex. Therefore, floor joints should not be coated over, as coatings are much harder and far less flexible, which will result in cracking if applied over a joint sealant.

For floors that are being revitalized with a new coating system, careful inspection of the floor joints should be completed. If the sealant has deteriorated, it should be removed and replaced. The sealant should be scraped out before the floor is diamond ground or shot blasted. The floor should then be vacuum cleaned to remove abrasives, dust and debris, paying particular attention to the joints.

During floor coating application, apply the coating to the inside of the joint as per the diagrams below. Once the coating system is fully cured, fill the joint with an appropriate joint filler (do not use newspaper, rags or other materials) and seal with a suitable floor joint sealant as per the Manufacturer's instructions.

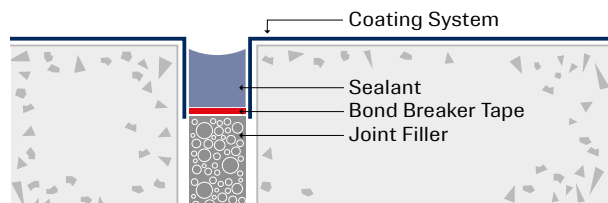


Diagram of a floor expansion joint

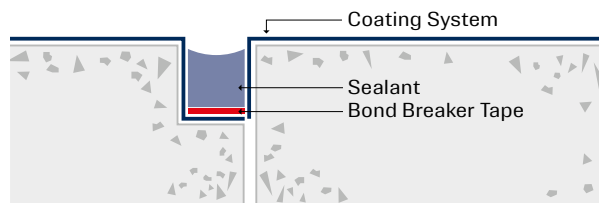


Diagram of a floor construction joint

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