



JOINT

GUIDELINES & INSTRUCTIONS



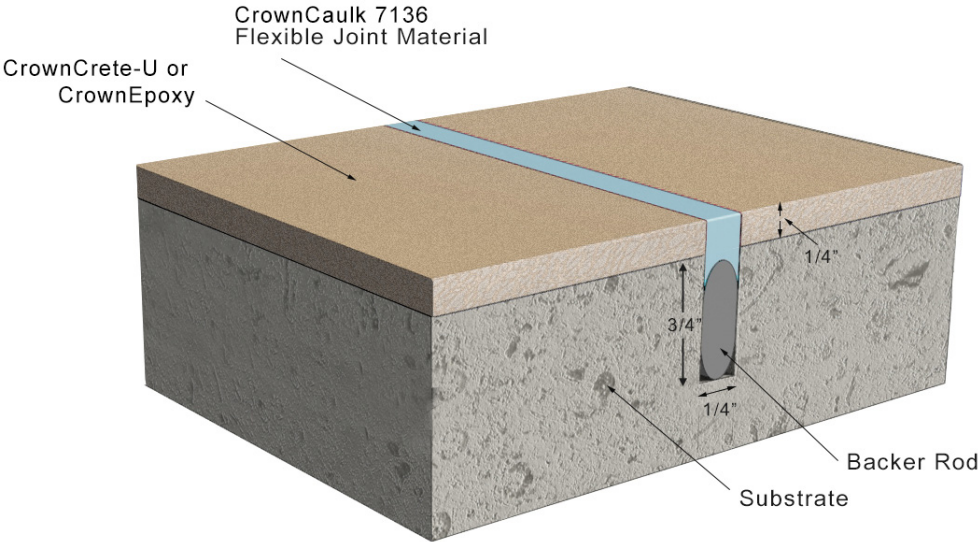
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JOINT GUIDELINES AND INSTRUCTIONS

TWO BASIC JOINT TYPES: MOVING AND NON-MOVING

Moving (Dynamic) Joints

These are known as construction, expansion and isolation joints. These joints allow for vertical and horizontal movement between the slab and adjoining structures, walls and columns. Joints minimize cracking.



It is recommended that moving joints are "honored". By honoring these joints, you make a saw cut through the finished floor system at a depth of 3/4" and 1/4" wide with a diamond blade saw attached to a vacuum. A bond breaker, such as backer rod (closed cell foam) must be added to the bottom of the joint.

Cracks and/or stretch lines (white lines) may occur on any resinous floor systems installed over moving joints. Therefore, it is important that the joints are saw cut and properly filled. There are no guarantees that these joints will not result in cracks or stretch lines due to shear stress alone but it can minimize any further propensity of joints cracking. A temperature swing of 20 degrees or more could have an impact on the slab expansion and contracting. This will result in hairline cracking, even on non-moving joints. We recommend flexible polyurea joint sealant for honoring moving joints – CrownCaulk 7136 is our 2-component fast setting polyurea caulking compound designed for expansion joints.

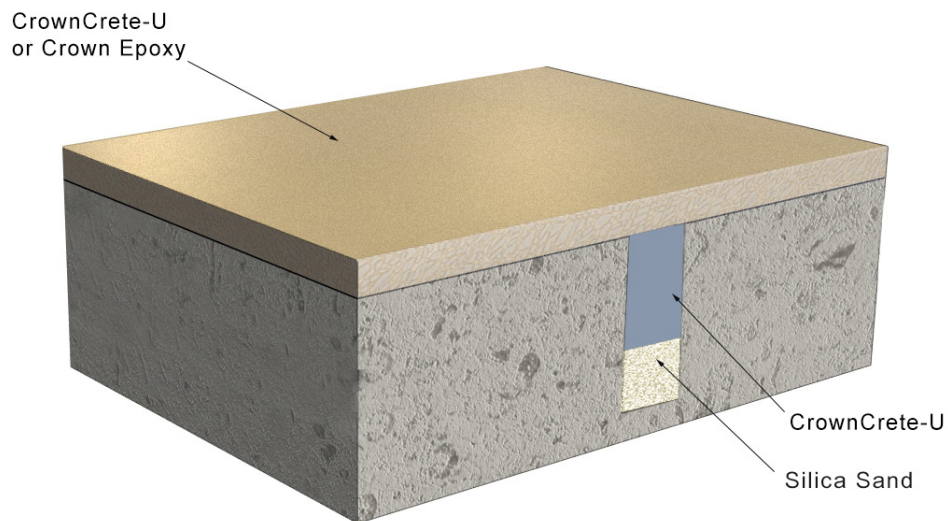
Important:

Be sure to mark the location of the joints prior to the installation of floor coating.

Non-Moving (Static) Joints

These are known as control and/or contraction joints. Non-moving joints are placed to accommodate shrinkage and relieve internal stress during the curing process of the concrete when concrete is poured in long stretches such as sidewalks.

CONTROL JOINT (NO MOVEMENT)

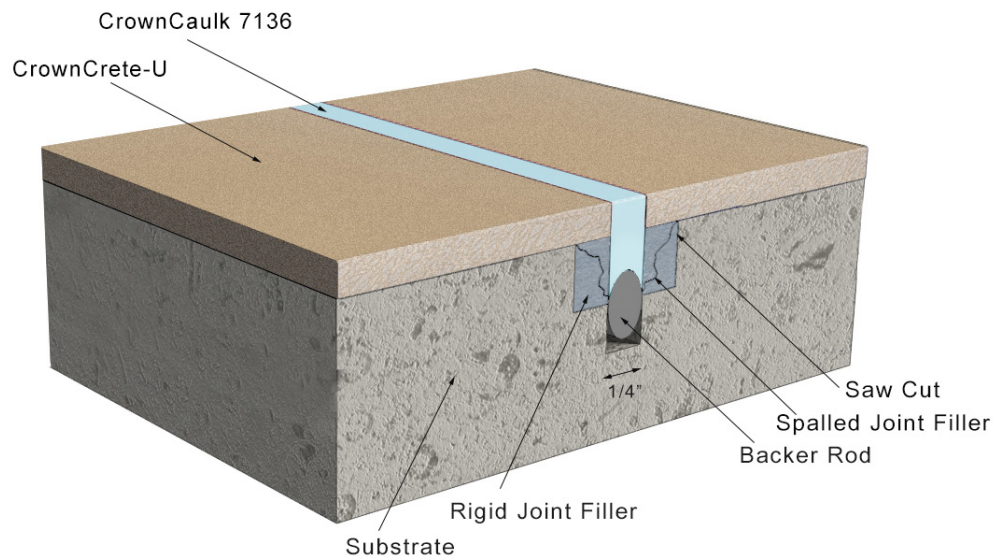


When filling non-moving joints, be sure to prepare them by removing all laitance, debris and sealers to a depth of $\frac{3}{4}$ " deep and $\frac{1}{4}$ " wide with a diamond blade saw attached to a vacuum. A bond breaker such as silica sand (30-40 mesh) at $\frac{1}{4}$ " deep may be added to the bottom. This will stop any joint materials from seeping down too deep. Any CrownCrete U cement urethane materials can be used to fill the non-moving joints. Please contact Crown Polymers' technical services team for proper material.

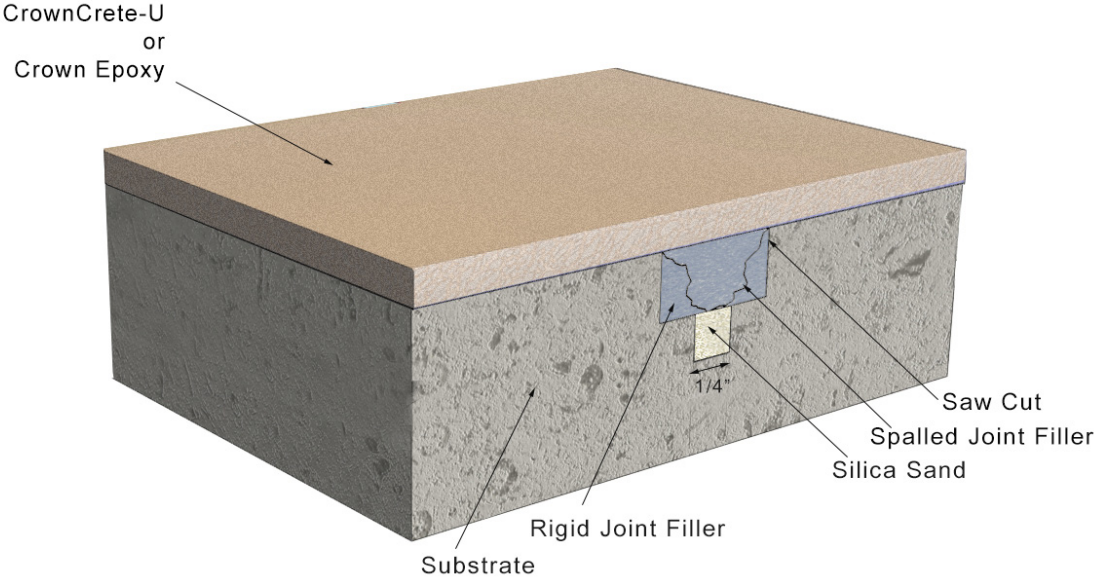
Repair of Damaged/Spalled Joints

Saw cut each side of spalled area and chip out the center with a chipping hammer or consider the use of a series of blades to reach the proper width and depth. When using multiple blades, be sure the center blade can reach the depth of the original joint and the outer blades can achieve a cut creating a "T" shape after cutting.

REPAIR OF SPALLED JOINT OVER $\frac{1}{4}$ " WIDE (NO MOVEMENT)



REPAIR OF SPALLED JOINT OVER 1/4" WIDE (NO MOVEMENT)

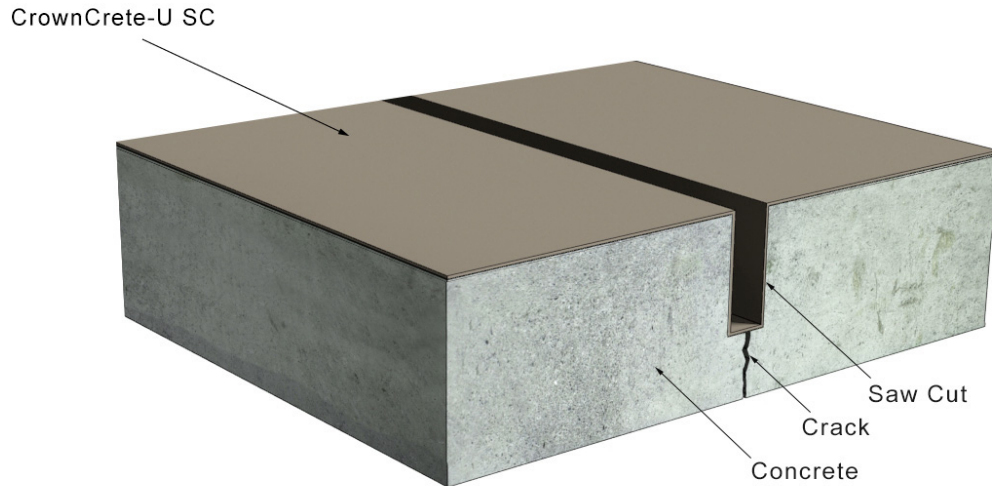


IMPORTANT NOTES:

The American Concrete Institute (ACI) recommends that the filling of industrial floor joints be deferred 60-90 days after a floor slab has been poured or as long as possible. This is to allow control and construction joints time to open closer to their ultimate width through the concrete shrinkage process. (In freezer/cooler areas, floor should be stabilized at ultimate operating temperature for 7 days prior to installation).

Prior to treatment of joints, be sure to contact the facilities owner or manager to determine how long the concrete has cured as well as the location of moving and non-moving joints.

SEALING OF SAW CUT JOINTS IN CONCRETE SLABS



TREATING A CONCRETE JOINT

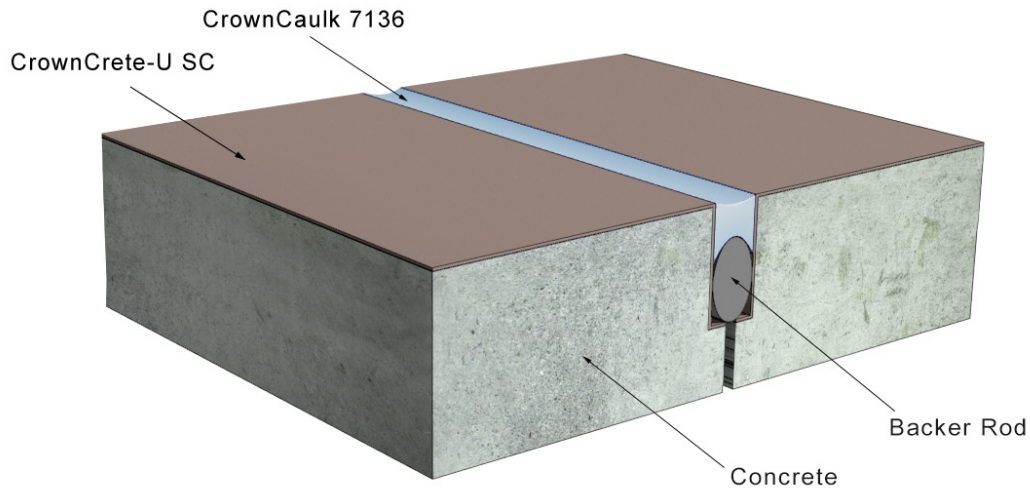
Concrete less than 6 months old:

- Use CrownCrete U SC as per specifications
- Coat sidewalls and bottom of cavity with CrownCrete U SC
- Fill cavity with CrownCaulk 7136 polyurea caulking compound or CrownCrete U materials
- Install sub-flooring system

Concrete more than 6 months old:

- Use CrownCrete U SC as per specifications
- Coat sidewalls and bottom of cavity with CrownCrete U SC
- Indoors: Fill cavity with quartz sand or CrownCrete U materials
- Outdoors: Fill cavity with a CrownCaulk 7136 polyurea caulking compound or CrownCrete U materials
- Touch-up slab surface
- Install sub-flooring system

SEALING OF SAW CUT JOINTS IN CONCRETE SLABS



TREATING A CONCRETE EXPANSION JOINT

- Use CrownCrete U SC as per specifications
- Coat sidewalls and bottom of cavity with CrownCrete U SC
- Allow to cure for 12 hours at 73°F
- Install a backer rod
- Fill cavity with CrownCaulk 7136 polyurea caulking compound or as specified by architecture/engineering such as CrownCrete U materials
- Install sub-flooring system



Depending on joint depth and the cracks associated with the joint – it is often necessary to add additional sand filling into the saw cut then set the backer rod in place. For additional strength – reinforced with fiber mesh joint tape.



**Sources: ACI 224 “Joint in Concrete Construction”
ASTM C 1193-0 and C-920-02
National Ready Mix Concrete Association “Concrete in Practice”
SSPC**

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