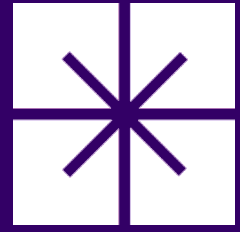


Position Statement: Floor Joint Fillers



The Concrete Floor Contractors Association of Canada represents the technical interests of the concrete floor industry.

Position Statements are based upon the desire to provide state of the art information to owners, specifiers and contractors to both improve quality and reduce problems.

We hope that this information will assist you in this goal.

If you have any questions, or comments, please feel free to contact us at 905-582-9825 or by e-mail at info@concretefloors.ca

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Problem:

Joint fillers in concrete floors de-bond when they are applied too early after a new concrete floor installation. New concrete shrinks as it dries and this normal drying shrinkage can exceed the elastic capacity of a joint filler material to remain bonded when applied too early in new concrete. This issue is not about deficient workmanship or materials. Many specifications and site managers are insisting on the early filling of floor joints to meet schedule requirements, even with a full understanding that a bond failure will occur.

Solutions:

Each project has unique characteristics that require very careful consideration. It is strongly recommended that this issue be discussed at the preconstruction meeting in consultation with the joint filler manufacturer.

For foot traffic or pneumatic tire traffic:

Leave joints unfilled and fill after a minimum 75 days of air drying at 20°C. Use flexible joint sealants (maximum Shore "A" hardness of 35) filled 12mm deep on a backer rod.

For solid tire forklift traffic:

Leave joints unfilled and fill after a minimum 120 days of air drying at 20°C. Use semi-rigid load bearing fillers (minimum Shore "A" hardness of 75) filled the full depth of sawcut joint.

Notes:

- 1. Joint fillers with a Shore "A" hardness greater than 35 shall also be filled after a minimum 120 days air drying at 20°C.*
- 2. Joint fillers in freezer slabs shall be filled after the slabs have been reduced to operating temperatures.*

Option: To accommodate earlier filling, joints may be pre-filled with a temporary filler to accommodate shorter schedules. Temporary fillers shall either be specified in the contract documents or be paid as an extra to contract. Pre-fill with a 12mm deep temporary filler material, then prepare and re-fill after the minimum air drying period as noted above.

Position Statement:

The requirement to replace joint sealants/fillers which de-bond as a result of early filling is not a workmanship or material deficiency. The concrete floor contractor and material supplier shall not be held responsible for the failure of joint filler material to remain bonded when filled earlier than noted above.

Further references:

- *Canadian: CSA A23.1 Materials and Methods of Concrete Construction*
- *American: ACI 302 Guide for Concrete Floor and Slab Construction*
- *CFCA Website: www.concretefloors.ca/filler.htm*