



CRACKING IN CONCRETE BASEMENT WALLS

Caste-in-place concrete basements provide a durable, high quality alternative to masonry block construction. Some cracks are to be expected in concrete basements and require repair only when they begin to leak, although repairs also should be done when cracks exceed an 1/8" width or depth on walls, or measure 3/16" x 1/8" on floors and 1/4" x 1/4" on garage slabs.

Why Basement Cracks Appear

- Poor sub-grade preparation
- Use of high slump concrete
- Poor concrete placement practices
- Improper jointing practices or failure to use joint controls
- Careless backfilling along the exterior surface

What to Do About It

Many of the precautions to prevent cracking on concrete surfaces also apply to concrete basements including adequate preparation of sub-grades and forms, proper placement of control and isolation joints, use of concrete with a moderate slump rating and proper curing. (Please see Concrete Tips/Cracking in Concrete Surfaces this for an explanation of these preventative steps.) Additional measures include:

- **Placement and curing.** When pouring basement walls, it's important that concrete be poured in a continuous operation to avoid cold joints. Fresh concrete should not be allowed to freeze in cold weather, and if necessary the structure should be enclosed with polyethylene sheets and heated.
- **Waterproofing and draining.** Spray or paint the exterior basement walls with a commercially available damp proofing compound and provide foundation drainage by installing drain tiles or plastic pipes around the exterior of the footing, then covering it with clean granular fill to a height of at least one foot.
- **Backfilling and final grading.** Backfilling must be done carefully to avoid damaging the walls. Bracing may be necessary.

Products Used: Tamms Dehydrative #85; Munsey Foundation Asphalt Coating; Tamoseal Foundation Coating.