

# Vapor Barriers

It has been brought to our attention that tax incentive programs used by some homebuilders are requiring **Vapor Barriers** directly underneath interior slabs on grade. Placing concrete directly on a vapor barrier can create potential problems. **Pop-outs, Plastic Shrinkage Cracks, Delamination** and **Curling** are greatly increased when pouring concrete directly on vapor barriers.

Placing concrete directly on vapor barrier increases the amount of bleed water that rises to the top surface. Because of this, it also increases the waiting time between bull floating and further finishing. Finishers must wait for bleed-water to disappear before troweling.

American Concrete Institute (ACI) 302 indicates that placing concrete in direct contact with the vapor barrier aggravates plastic shrinkage cracking and increases slab curl. Since the bottom of the slab loses no moisture, water flow from the concrete migrates up through the surface which can significantly influence the possibility of surface defects.

**Local sands** contain deleterious materials that are known to react with alkalis in cement. Concrete placed directly on vapor barrier increases the alkali at the surface due to the migration of water from the bottom up, increasing the chances of Pop-Outs.

## RECOMMENDATIONS

### Use Imported Sand

If Vapor Barrier is necessary cover it with 2-3 inches of damp compacted sand before placing concrete.

