



Beaulieu Residential

Volume 4, Issue 1
January 15, 1999

In this Issue: Sprouting, Carpet & it's Affect on Concrete Degradation, Carpet Installed Over Carpet, Reburnling Yarn Pulls, and Polyester Stain Resist Features

Carpet & its Affect on Concrete Degradation

It has been observed that carpeting installed over concrete balconies can contribute to a loss of structural integrity of the concrete due to corrosion of the main reinforcing steel rebar (similar conditions have been experienced in which various tile products have been used). The majority of these cases have occurred along coastal regions and as a result of these chloride (salt) laden outdoor environments. During rain, these salts migrate into the carpet/concrete interface. With subsequent rains, the salts can infiltrate deep into the concrete, where they act as a catalyst for electrolysis, causing rust of the steel rebar. To help prevent this, most building codes now require that the rebar be no less than 1 to 1 ½ inches from the surface of the concrete. The majority of concrete balconies that have shown premature structural fatigue had metal rebar that was placed less than ½ inch from the surface.

Moisture migration into exterior concrete can be circumvented by the use of various types of waterproofing sealers/membranes. These products are generally constructed of rubber, urethane, or asphaltic compositions (scupper-like draining mechanisms are also used for this purpose, although less effectively). Since concrete permeability increases with age, it is especially important to use a water proofing system on older balconies. However, one must remember that if less costly beach sand or sand with a high salt content was used in the concrete mixture, deterioration from within the concrete may occur regardless, and sealing the surface of the concrete will not prevent this from happening.

According to several specialists in the field of high rise balcony repairs, carpet has been listed as the best floor covering that can be used, provided that the concrete has been properly sealed. Outdoor carpet on a properly sealed, good quality exterior concrete should not contribute to degradation of steel rebar.

Technical Services
800-944-2840 or www.beaulieu-usa.com
Mark Johnston
Tonya Monk
Tammy Smith