

From time to time questions are asked regarding the cause of accelerated deterioration of concrete balconies and the role of a floorcovering material on the surface, be it carpet, tile, or some other materials. Key factors influencing concrete deterioration include type of sand used in the concrete mix, quality of the concrete, and depth of the rebar beneath the concrete surface. In coastal areas, allegations have been made that less costly beach sand is sometimes used in the concrete mixture. High salt concentration from beach sand acts as a catalyst for electrolysis which causes the metal rebar supports in concrete to rust quickly. The depth of the rebar also has a great deal of influence on the degeneration of the balcony structural integrity. A majority of the concrete balconies that show premature structural fatigue have metal rebar that is less than ½ inch from the surface. Most building codes require that the rebar be no less than 1 to 1 ½ inches from the surface.

Proper use of a high quality concrete sealer can reduce the deterioration caused by high alkalinity or continued moist conditions. Balcony surfaces, edges, etc., exposed to the elements are likely targets for deterioration; therefore, a sealant should be applied to all exposed concrete balcony surfaces whether a covering is installed or not. If beach sand, or sand with a high salt content, was used in the concrete mixture, deterioration may occur from within and sealing the surface will not prevent this occurrence.

Outdoor carpet is a practical concrete balcony covering which offers comfort, a superior slip resistance surface, and several aesthetic benefits. Outdoor carpet on properly sealed, good quality concrete should not contribute to the deterioration of outdoor concrete balconies.

Numerous instances have been cited in which various tile products have been installed over concrete and when the old tile is removed, the concrete underneath has completely deteriorated. The tile has completely masked the problem hidden underneath. In situations where problems are suspected, carpet is the easiest floor covering to remove for inspection. 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 providing the concrete has been properly sealed.