

Direct Glue Down Commercial Installations

Three things are certain in the textile floor covering trade: No two installation needs are alike. Not all carpet is suitable for every end-use. Not every end-use allows for the option of either the tackless or the direct glue-down method of installation. The purpose of this newsletter is to identify with those types of commercial end-use that must specify the direct glue down method of installation.

One installation method qualifier in commercial installation is traffic load. The other is traffic type, or, more precisely, whether rolling traffic associated with the use of gurneys, carts and other wheeled devices could force an otherwise properly stretched-in carpet to inevitably wrinkle, buckle and delaminate. And of course the other consideration involves specifying the right carpet for the end-use. This goes beyond relying on marketing hype and pertains more so to knowing the real capabilities and limitations of carpet fibers and carpet constructions. In fact, improper carpet specification problems, which can be easily avoided, often result in staggering claim numbers.

In the category of direct glue-down requirements we can include airport terminals, educational facility areas such as classrooms and corridors, medical facility areas used for patient treatment, classrooms, corridors, elevators, entrances, and lobbies, corridors and meeting rooms, church sanctuaries, hotel/motel lobbies, bank lobbies, amusement centers, theaters, common areas in nursing homes and other elderly care facilities. While this list can go on, perhaps one of the most important end-use installation considerations involves good, old fashion common sense. Carpet dealers, architects and specifiers must understand that improper installation specification is a common source of carpet complaints that have nothing to do with the quality or workmanship of a carpet.

Many commercial carpet installations are over concrete (slab). Although many “experts” consider the cure time of slab to be seven days and the drying time to be ninety days, in truth the drying time clock can only start ticking after the carpet is protected from all sources of water, and only then when proper ambient heat and humidity are suitable to induce drying. We also know that both new and old slab is subject to water vapor intrusion from beneath the slab. Because of this, the installer or floor covering contractor should include slab moisture testing using an in-situ probing moisture meter, since these calibrated devices can be used to detect the presence of moisture in a slab at a point 40% and then 80% of the slab thickness. This test will detect and read relative humidity in the slab and identify the presence of moisture that cannot be detected by Calcium Chloride testing, which can only measure up to ¾” of the top layer of the slab.

Adhesive manufacturers have made significant strides to insure that their products are capable of meeting the demands of direct glue-down commercial installations. As a result, their products are specified as various contract grade multi-purpose adhesives and various premium grade multi-purpose adhesives, and they all identify with the various carpet backing systems they are compatible with, recommended trowel notch sizes and spread rates, as well as the type sub floor material they can be spread over (concrete slab, wood, terrazzo, ceramic tile, etc.), all of which makes proper adhesive specification an easy process.

Today’s commercial carpets are essentially one of many building materials that must be properly specified to perform well, look good and in the case of carpet, cost less to install and maintain than alternate floor covering materials. These carpets must be capable to meet certain traffic load as well as soiling rates. Like installation specifications, commercial carpets must also be specified properly in order for the end-user to reap the benefits of a carpet capable of long-term service life with acceptable appearance retention levels. Considerations for carpet construction, color, texture and even pattern must be taken into account.

When specifying carpet for commercial end-use, price point should be usurped by honest assessments of fiber type and carpet construction capabilities. Lower price considerations and the savings benefit obtained on the front has been known to result in very costly replacement on the flip side of the coin. As an example, more costly nylon carpet will be better suited for heavy traffic; level loop and commercial cut-pile is going to be more practical than multi-level textures and textured patterns that have a tendency to lose their definition as a result of the traffic load demands of commercial installation environments (pattern walk-out); a solution dyed fiber will be more suited for areas subjected to tracked-on and spilled-on substances; darker shades of carpet are going to require less maintenance than lighter shades; and unitary backing is going to be required in high-traffic areas and in any area subject to sliding chairs, gurney use and the use of any other furniture or device that has the potential to snag and pull loop-piled yarns.

Another key consideration for proper carpet specification pertains to the amount of pile yarn in a cubic yard of carpet, otherwise known as density. Pile density is directly proportional to the number of stitches per inch in a tufted row (length) and the number of tufted rows across the width of a carpet.

Although written carpet specifications generally include the required carpet fiber type and construction (pile yarn weight, denier, dye method, gauge, pile height, stitches per inch and backing materials), method of installation is not always clear and could be left to the discretion of individuals ranging from the pulpit committee, the dealer or the end-user without any real understanding of the conditions the carpet will be subjected to and the type of demands that will be placed on it. Proper installation method is just as vital as proper carpet selection; both of which entail the overall specification process. For heavy traffic and rolling traffic the direct glue-down method is recommended whenever sub floor conditions (moisture, alkalinity, acidity, sub floor porosity, etc.) permit it.

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