All floorcovering materials have guidelines for installation mandated by the manufacturer of that specific material. There are also floor covering industry standards that are general in nature but specific as to the standard and common practices for installation of that flooring whether hard or soft surface products. The new Carpet and Rug Institute Standard for Installation of Commercial Carpet – CRI 104- has just been published and released (September 2015). CRI 104 (and 105 for residential carpet) is an update for the installation of textile floor covering material that takes into consideration the latest technology in textile flooring materials and what is required to install them properly. CRI-104 can be thought of as an umbrella document for the installation of carpet and repeatedly refers to the manufacturer’s guidelines for more specific information on installation of a particular product. The Carpet and Rug Institute is the national trade association of carpet and rug manufacturers and suppliers to the industry. The installation standards document, which has existed for decades, is updated periodically to bring it into phase with the advancements of the carpet products it covers and with the challenges that exist in the market place that can and will compromise the installation of textile floor covering material. The new CRI-104 Standard was revised and written by individuals in the carpet industry, including manufacturer’s field technical specialists, installation material specialists and commercial flooring contractor’s representatives.
The Foreword of CRI 104 below is taken from the publication and states;

“Products have unique characteristics and each installation project should be carefully evaluated to determine proper application of this standard. In circumstances not addressed in this document, contact the product manufacturer for specific guidance. The CRI requires that the services of professionally trained and qualified floor covering installers be obtained for all Commercial carpet installations. This minimum standard requirement for installation of carpet is based upon reliable principles and procedures developed through practical experience, research, and information obtained from manufacturers, retailers, installers, end users, testing laboratories, and others who have specialized expertise. For more detailed information, instructions and training, please contact the specific manufacturer. Failure to follow this minimum standard may result in an installation related failure; however it cannot be the basis for rejecting a claim relating to a manufacturing defect.”

What I like most about the new standard is that it states what you have to do to make an installation work in each area it covers but then tells you what will happen if you don’t do what you’re supposed to. The standard also makes repeated reference to consulting the carpet manufacturer. The importance of this is that CRI 104 is the industry standard for installation of textile floor covering material but each manufacturer of carpet has more specific installation instructions and guidelines for their particular carpet which supersedes any other information.

Most of the time complaints, claims and failures of carpet on a commercial project stem from someone not doing something they should have done resulting in the belief that the product in question is not doing what they expected it to. Broadloom carpet and carpet tile can vary greatly due to the different types of technologies employed to produce the product. Complex patterns of tufted carpet may create inherent characteristics that require a particular technique to install the material and very highly skilled installers. Varying backing systems may require special skills, adhesives or tools to install the carpet correctly. Carpet tile backings and face yarns may create challenges for installation and a host of new technology in use that doesn’t require adhesive out of a bucket certainly introduces an element of unique aspects to installing carpet products. A “one size fits all” mentally for installing broadloom carpet and carpet tile won’t work today and you have to know what you’re doing to successfully install the product. Floor covering materials have become more complex as they have become more elaborate in style, design and construction – carpet is certainly no exception. An installer can’t fall back on saying they have 20 or 30 years of installation experience with today’s carpet products. Unless you are aware of the most recent technologies in carpet and flooring you can’t know how it is to be installed. The standard then has notations, in red so they stand out and carry emphasis, that relate to different sections of the document.
For example after the first category mentioned – Storage and Handling – a list of what may result if the material is not handled or stored properly; I think this is one of the most important parts of the document. It is therefore eminently important for an architect, specifier, designer or anyone responsible for a particular carpet product being used and installed to write a specification that links the successful installation of the carpet product to the industry’s standard and that of the manufacturer. These are the documents that are viewed as the guidelines of how carpet must be installed should an argument arise in a carpet product failure. Manufacturer’s installation instructions and guidelines cover the specific carpet product. CRI – 104 covers everything that has anything to do with the success of carpet products being installed from the planning and layout phases to third party testing for moisture and alkalinity in concrete, site related conditions, conditioning of the space, transitioning between different flooring products and surfaces and treated residual materials on a substrate. These items fall under the “General Requirements” of installing all carpet products.

The standard then goes into the installation of carpet tile and broadloom carpet (broadloom carpet, regardless of width, is any textile floor covering material that requires installation that is not a carpet tile or modular carpet product). Covered in this category is how the material is to be installed, how varying carpet backings are to be treated and installed, how seams are to be sealed, direct glue down installations, installation of carpet with cushion backs, specialty backings and double stick installations.

Most often, when we’re called in to help determine what went wrong and why and who did it; that is the responsible party or parties, and then try to come up with a way to resolve the failure at minimal cost as opposed to replacing the entire job, the first thing we see is that someone did something they shouldn’t have done or they didn’t do something they should have done that caused the condition exhibited at the installation site – regardless of the flooring material. One of the questions we most often ask is whether there was a specification written for the installation of the flooring material and floor prep. In a formal specification by an architect this is Division 9, or that section of a project specification dealing with interior finishes that includes floor and substrate treatment and materials including their installation. Relative to carpet the Division 9 spec should first reference the most current CRI-104 guidelines. After the carpet selection is made the manufacturer’s installation
Guidelines should be referenced. If there is no architect involved and the project is just for carpet replacement then CRI-104 should be the guideline followed by whomever is making the flooring decisions as the industry standard and then the manufacturer's installation guidelines used for the specific product selected. That said, some carpet manufacturer's don't have their own specifications and refer to the industry standards as to how their carpet is to be installed and what should happen before the installation – from handling to floor prep, etc. Following the CRI-104 standard in a spec, regardless of who writes it, should eliminate virtually all of the conditions which compromise the installation of carpet. Keep in mind that CRI – 104 deals only with the installation guidelines for textile floor covering materials not with the performance of the carpet ultimately selected for use in a particular application. That's a separate area of concern that has to do with what product will work best in the particular application – the number one cause of carpet failure; installation follows that.

Finally, in the CRI-104 Standard at the end you’ll find the definition of terms used for carpet and installation, tools and materials, trowel size minimum guidelines, tackstrip, adhesive types and definitions and a dew point chart.

Because CRI – 104 will continue to be the carpet industry’s installation standard, provisions are in place for the document to be updated on-line as needed and required as new products and technologies are created. There are also plans for how – videos that show what to do and how. The standard can also be downloaded to a smartphone so installers, architects, designers and specifiers can have it readily available to consult. There shouldn’t be a commercial carpet installation spec written that doesn’t reference CRI-104. Here is the link to the CRI so you can download the standard, you can also click on the CRI logo on the first page.


If you have any questions or need help with a flooring issue, contact us, we always have the answers.