



## CONSTRUCTION

---

### Carpet Backing Technologies

## The Foundation of Carpet Performance

Carpet performance depends on more than fiber choice or pattern design. It starts with what's underneath the surface. The backing is an essential but often overlooked part of carpet construction, influencing moisture tolerance, comfort, appearance retention, and the long-term durability of your flooring.

At Mannington Commercial, we've been manufacturing flooring for more than 100 years and are committed to delivering the highest-performing carpets possible. We take every component of construction into account—including the backing—and because we control the manufacturing process, you can count on consistent quality across every installation.

This guide outlines the key considerations selecting backing systems and how our solutions support the performance needs of your space.



UTPERFORM

Mannington<sup>®</sup>  
COMMERCIAL

# Why Carpet Backing Matters

Carpet backings are made from three core components: a primary backing, a bonding adhesive, and a secondary backing or cushion. Together, they stabilize the carpet construction, secure the face yarns, and help determine how the product will perform in your space by affecting:

- **Structural integrity:** Backings provide the tuft bind that helps prevent edge ravel, zippering, and other product failures.
- **Dimensional stability:** A well-engineered backing helps carpet lay flat and maintain its shape even when exposed to heat, moisture, or heavy foot traffic.
- **Appearance retention:** Cushion backing can absorb some of the impact from foot traffic leading to a longer lasting texture appearance.
- **Moisture management:** Depending on the backing, systems may block topical moisture or tolerate high-RH slabs to help prevent wick-back staining and subfloor issues.
- **Comfort and acoustics:** Cushion backing systems can also provide enhanced durability, comfort under foot, and acoustic properties.
- **Environmental impact:** PVC-free and recycled-content options support material health and sustainability goals.

## What to Consider When Selecting a Backing

Choosing the right carpet backing starts with understanding the performance needs of your space. The factors below can help guide your selection and ensure the construction aligns with your project requirements:

### Types of Backing Systems

Every installation has unique conditions and performance expectations. Backing systems vary in chemistry, structure, and behavior, and choosing the wrong one can impact performance. Understanding the three major categories of commercial carpet backings can help guide your selection.

- **Latex Backings**  
Latex is the industry standard backing for broadloom construction. It provides good tuft bind, flexibility, and pattern match characteristics, making it suitable for many commercial applications. Because latex is water-based, it is not ideal for environments with high moisture exposure or aggressive wet cleaning.
- **Polyurethane Backings**  
Polyurethane backings form a strong, durable bond that secures the primary and secondary backing, enhancing the tuft bind and long-term performance. Most of the time polyurethane backings are cushions so they provide comfort underfoot. While highly durable, polyurethane backings cannot be welded and may not be suitable for environments needing an impermeable moisture barrier.
- **Thermoplastic Backings**  
Thermoplastic systems—including hotmelts, polyolefins, and PVC—offer excellent dimensional stability and resistance to edge ravel and delamination. PVC constructions can also be chemically welded for a continuous moisture barrier, making them ideal for spaces where spill protection or hygienic conditions are essential. Some thermoplastic backings are recyclable and support circularity goals.



## Comfort and Acoustics

Comfort underfoot and noise reduction are important considerations for many commercial applications, especially areas where people stand, walk, collaborate, or work for long periods. Cushion systems can soften footfall and improve acoustic performance, contributing to a quieter, more comfortable environment for people who occupy your space.

## Mannington Commercial Solutions

- **Enhanced comfort and improved acoustics**  
Ideal for offices, education spaces, hospitality areas, and anywhere occupant comfort is a priority.  
**Best options:** Infinity® 2 MG Cushion, rEvolve® II Cushion, Deltaloc®

## Installation Conditions and Site Constraints

Project timelines, renovation needs, and existing substrate conditions can all affect backing choice. Some systems accommodate installation over old adhesive, higher moisture levels in your slab, or faster installation requirements. Understanding site constraints ensures the selected backing meets your needs.

## Mannington Commercial Solutions

- **Fast installations or occupied spaces**  
Ideal for projects needing minimal disruption or rapid turnaround.  
**Best options:** Infinity® 2 MG (installs quickly with FreLock Tabs)
- **Installations over existing adhesive**  
Reduces prep time and supports successful installation over subfloors with adhesive residue.  
**Best options:** All Mannington Commercial backings with Mannington Assure Primer.



## Moisture Conditions

Moisture exposure is one of the most important factors in backing selection. Spaces with frequent spills or intensive sanitation requirements may need an impermeable moisture barrier to keep liquids from reaching the subfloor. Installations over high-RH or high-pH slabs may require a moisture-tolerant system that can handle vapor transmission without compromising performance. Understanding your slab conditions upfront helps ensure long-term durability and protects against issues like wick-back staining, delamination, or adhesive failure.

### Mannington Commercial Solutions

- **Any slab condition — no moisture testing required**

No RH limit when the slab shows no hydrostatic pressure, standing water, or visible staining.

**Best options:** Infinity® 2 MG, Infinity® 2 MG Cushion with approved adhesive.

- **Slabs with an intact vapor barrier (Class B or better)**

Quick pH testing recommended; no hydrostatic pressure or standing water.

**Best options:** Infinity® 2, Infinity® 2 MG, Infinity® 2 MG Cushion, Integra® HP, UltraBac® RE with approved adhesive.

- **Unknown slab conditions — moisture testing required**

Suitable when testing is needed to confirm RH and pH levels.

**Best options:** Infinity® 2, Infinity® 2 MG, Infinity® 2 MG Cushion, Integra® HP, UltraBac® RE, with approved adhesive.

## Maintenance and Cleaning Practices

Different environments have different maintenance demands, and the right backing can help ensure your carpet performs as intended over time. Facilities that rely on frequent or aggressive wet cleaning, such as healthcare or senior living, may require impermeable moisture barriers or welded seams to prevent liquids from reaching the subfloor.

### Mannington Commercial Solutions

- **Withstands frequent cleaning and eliminates wick-back**

Ideal for healthcare settings, labs, and other hygiene-focused spaces where spills must stay on the surface.

**Best options:** Integra® HP (broadloom with impermeable barrier and chemically welded seams)

- **Facilities with standard maintenance programs**

Suitable for spaces with routine vacuuming and intermittent cleaning requirements.

**Best options:** All Mannington Commercial backings

## Budget and Lifecycle Value

While different backing systems vary in upfront cost, long-term performance and appearance retention can significantly impact lifecycle value. Cushion systems or moisture-barrier backings may extend service life and reduce replacement frequency for your carpet. Considering both immediate budget and long-term performance can help identify the most cost-effective solution.

### Mannington Commercial Solutions

- **Superior dimensional stability**

Supports reduced replacement cycles and better long-term appearance.

**Best options:** Integra® HP, Deltaloc® (PVC-Free), Infinity® 2 Modular, rEvolv® II (PVC-Free), and rEvolv® II Cushion (PVC-Free)



# Specifying the Right Mannington Commercial Solution

Choosing the right carpet backing comes down to matching the performance needs of your space with the construction designed to support them. The chart below serves as a quick reference to help you compare our broadloom and modular backing systems and identify the best fit for their project requirements.

## Broadloom Carpet

Carpet Backing	Moisture Performance	Cushion	Sustainability	Best For
UltraBac® RE (PVC-Free)	Standard	X	Minimum of 10% post-consumer recycled content by total product weight	Most installations with minimal subfloor needs
Integra® HP	Impermeable barrier (passes British Spill & Moisture Impact Tests; weldable seams)	X		Where heavy topical moisture or spills is a concern
Deltaloc® (PVC-Free)	Standard	✓	Minimum of 20% post-consumer recycled content	Where comfort underfoot is a priority



## Modular Carpet

Carpet Backing	Moisture Performance	Cushion	Sustainability	Best For
<b>Infinity® 2 Modular</b>	Moisture barrier	X		Most installations where there are no major subfloor issues
<b>Infinity® 2 MG</b>	Moisture-tolerant (up to 99% RH / 12 pH)	X		Where high moisture could be a concern
<b>Infinity® 2 MG Cushion</b>	Moisture-tolerant (up to 99% RH / 12 pH)	✓		Where high moisture could be a concern and / or comfort underfoot is a priority
<b>rEvolve® II (PVC-Free)</b>	Moisture barrier	X	Dematerialization – utilizes fewer raw materials	Where non-PVC flooring is a need, in standard installation environments
<b>rEvolve® II Cushion (PVC-Free)</b>	Standard	✓	Minimum of 10% post-consumer recycled content by total product weight	Where non-PVC and comfort underfoot is needed

Learn more about our approach to Construction at [manningtoncommercial.com](http://manningtoncommercial.com).

**Mannington**  
COMMERCIAL

