

Five Times Carpet Manufacturers Should Consider Testing During the Product Lifecycle

Before a carpet product reaches distributors, retailers, or job sites, manufacturers need data on how it is expected to perform.

Independent testing supports carpet manufacturers throughout product development, from evaluating new materials and construction methods to validating performance claims, supporting certification, and documenting compliance.

1. During Product Development

The earlier testing begins, the more useful the data can be for product design, material selection, and manufacturing decisions.

For carpet manufacturers, product development may involve comparing fiber types, pile construction, backing systems, adhesives, substrate conditions, and installation methods. Testing can help evaluate durability, appearance retention, texture change, matting, crushing, moisture exposure, fire performance, indoor air quality, and emissions before production begins.

Intertek works with manufacturers to develop testing programs based on a product's construction, intended application, and performance objectives. Test data can support quality assurance, product development, specification review, code-related documentation, certification, and performance claims.

"Carpet testing is most useful when it follows the product through development, manufacturing changes, performance claims, certification, and ongoing quality review."

2. When Materials or Manufacturing Processes Change

A new raw material supplier, backing system, adhesive, dye, fire retardant, or production process can affect how a carpet performs.

Even modifications intended to improve cost, supply chain reliability, or manufacturing efficiency may affect wear resistance, appearance retention, flammability, VOC emissions, backing performance, adhesive compatibility, or moisture response.

Retesting after material or process changes helps manufacturers compare updated products against previous test data, customer requirements, and product claims. It also provides quality teams with documentation to verify consistency before products enter production or customer review.

3. Before Supporting Product Claims

Performance claims require documentation. This is especially true when manufacturers prepare product literature, technical data sheets, customer submittals, retailer documentation, or project specification packages.

Independent testing can help manufacturers substantiate claims related to durability, appearance retention, wear resistance, indoor air quality, fire performance, installation compatibility, cleaning and maintenance, moisture exposure, and material composition.

For example, ASTM E648 is commonly used to measure the critical radiant flux of floor-covering systems. Depending on the market and project requirements, manufacturers may also need data on VOC emissions, PFAS, fluorine, heavy metals, fire retardants, or other chemicals of concern.

4. Preparing for Certification, Specifications, and Compliance

Commercial carpet products may need to meet certification programs, customer requirements, project specifications, building code requirements, or local and state compliance requirements.

Testing priorities can vary by carpet type, intended use, installation method, backing system, adhesive, maintenance expectations, and target market. A carpet product used in healthcare, hospitality, education, transportation, office, or residential settings may face different performance and documentation requirements.

Depending on the product and intended application, manufacturers may need to conduct testing related to:

- Wear resistance and appearance retention
- Texture change, matting, and crushing
- Fire performance, including ASTM E648 critical radiant flux where applicable
- Indoor air quality and VOC emissions
- Moisture exposure
- Backing, adhesive, and substrate compatibility
- Cleaning and maintenance performance
- Material composition, including PFAS, fluorine, heavy metals, fire retardants, or other chemicals of concern where applicable

Working with an independent testing laboratory helps manufacturers identify the testing path that aligns with the product, installation system, certification goals, target market, and documentation requirements.

5. Throughout the Product Lifecycle

Testing should not end once a product reaches the market.

Manufacturers may use testing to monitor product consistency, evaluate manufacturing changes, compare new materials, investigate field performance, respond to customer or project requirements, and support continuous product improvement.

Ongoing testing can also help manufacturers verify that products continue to perform as intended under expected service conditions, including cleaning methods, maintenance cycles and moisture exposure. For quality, R&D and technical teams, that data can support product updates, customer communication and future product development.

Partnering with Intertek

Manufacturers often need multiple types of testing during product development. Performance testing, fire testing, indoor air quality testing, chemical analysis, and certification may all be part of bringing a flooring product to market.

Intertek provides a comprehensive range of carpet testing and certification services for residential and commercial flooring products. From product development through certification and ongoing quality assurance, manufacturers can work with a single independent testing provider to evaluate performance, fire characteristics, indoor air quality, material composition, and other product-specific requirements.

Learn more about Intertek's carpet testing and certification services & download the flooring brochure.

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