



MODEL SPECIFICATION FOR COMMERCIAL CARPET



Note: Subject to Change or Revision As Additional
Data Becomes Available

The adoption and use of these model specifications
are voluntary. No warranty of performance by CRI is
either expressed or implied on any product selected.

GETTING THE MOST FROM YOUR CARPET INVESTMENT

By Joe W. Yarbrough, The Carpet and Rug Institute

Maximizing and protecting your investment are things that we all strive for when making purchasing decisions. Whether getting the most from a routine stock order or making major renovations, we all want to know we got the right product to perform the task we have in mind. When it comes to carpet, there is no need to reinvent the wheel. We have laid out the essential considerations for you in this one guide. Getting the right information on your carpet purchase couldn't be easier.

There are really three things to keep in mind when you are considering your carpet investment. First is to select the right carpet for your use. That is what this guide addresses. Commercial specification, or selecting the right carpet for the right spot, can give you a dizzying list of ASTM, AATCC, ISO, and governmental standards. What do each of these standards and test methods assure you? Is 8lbs. tuft bind good? Worrying about which one is important and what you should require for each can be confusing. So, which is most important? All of them. The values specified for each of these critical measures have developed over time from vast experience and will serve well when installed and cared for properly.

Once you've selected the right carpet for your floor, what's next? It's time to install. The Carpet and Rug Institute has long been the recognized leader in installation guidance and has published the CRI 104(Commercial) and 105(Residential) carpet installation standards. Choosing an installer who conducts the installation in accordance with these standards will give you a much greater assurance of satisfaction than one who doesn't. The standards are available for download [here](#).

Finally, you have your new carpet installed and you're ready to enjoy it. So, how do you keep it in the best condition for as long as possible? Fortunately, The Carpet and Rug Institute has provided the information you need to properly clean and maintain your carpets. Establishing a program of routine, interim, and deep cleaning, using our certified Seal of Approval products, service providers and equipment, will yield the best results possible and the most long-term value and satisfaction from your purchase. You can visit our Cleaning and Maintenance information at www.carpet-rug.org/carpet-for-business.

That's it! Select the right carpet, install it correctly, and care for it properly. Following these three simple steps will help you navigate the world of carpet with greater ease and much more satisfaction in your finished product.

Thanks and enjoy your new carpet,

Joe W. Yarbrough, President

The Carpet and Rug Institute

PREPARING A COMMERCIAL CARPET SPECIFICATION USING THE “MODEL SPECIFICATIONS FOR COMMERCIAL CARPET”

**Step 1: Identify the intended END USE DESCRIPTION for the carpet to be specified.
(Example: Conference room in a commercial office building).**

**Step 2: Identify the END USE DESCRIPTION RECOMMENDATION associated with that area
(moderate, heavy, severe, extreme).**

**Step 3: Determine the construction and features of the carpet desired
(broadloom, woven, tile with cushion backing, etc).**

Step 4: Complete the appropriate Specification Sheet for the type(s) of carpet desired.

Note: Each job may require several types of carpet or have several different end use applications. Please complete a separate specification sheet for each end use application.

Note: The recommendations in this guide do not supersede requirements specified by the manufacturer's warranties. Please confirm that the requirements stated for the end use area match the provisions of the manufacturer's warranty.



TYPICAL END USE DESCRIPTIONS

This table is designed to assist you in identifying normal and typical foot traffic levels for a variety of commercial carpet applications. The **Typical End Use Descriptions** are common areas in commercial buildings such as library corridors, airport ticketing counters, or private offices. The moderate, heavy, severe, and extreme **Typical End Use Description Recommendations** are determined based on an ordinary number of users, type of traffic, anticipated frequency, intensity of use, and similar factors for the area described. It is intended as general guidance for that amount of traffic that would ordinarily be expected in that type of end use area.

Your experience and area may vary, so you may make adjustments to the values shown in Table 1 Typical End Use Description Recommendations based upon your knowledge of the specific area being carpeted. In such cases, the specifier may adjust the recommendation accordingly based on the specific application. **Consultation with manufacturers is recommended prior to final selection of products.**

Example: The Typical End Use Description Recommendation for libraries (corridors) is “Heavy.” For busier or larger than normal libraries, the specifier may choose to specify this area as “Severe”.

Moderate End Use Description Recommendations cover limited use areas in buildings such as private offices, sleeping rooms and some administrative areas.

Heavy End Use Description Recommendations apply to areas such as some corridors, conference rooms, open offices, entryways and areas where large numbers of people congregate.

Severe End Use Description Recommendations refer to rigorous foot traffic situations such as public areas, lobbies and dining facilities.

Extreme End Use Description Recommendations apply to areas such as transportation service areas (airports, buses, rail).



TABLE 1: TYPICAL END USE DESCRIPTIONS

Typical End Use Description	Typical End Use Recommendation			
	Moderate	Heavy	Severe	Extreme
Banks/Credit Unions				
Entrance and Customer Banking Space			X	
Open Office Space		X		
Private Office	X			
Bowling Center				
Concourse (excluding food service or working areas)			X	
Chapels and Other Religious Facilities				
Educational Wing	X			
Worship Areas	X			
Clubs/Lounges		X		
Golf Course Clubhouse				
Administrative Areas (without golf shoe traffic)	X			
Dining Area (without golf shoe traffic)	X			
Grill Area (with golf shoe traffic)		X		
Pro Shop (with golf shoe traffic)		X		
Libraries				
General Areas		X		
Conference Rooms	X			
Corridors		X		
Hospitality/Hotels/Casinos				
Corridors and Hallways		X		
Meeting/Conference Rooms		X		
Guest Rooms	X			
Ballrooms		X		
Lodging Facilities/Dormitory, etc.				
Conference Room		X		
Combination Living/Sleeping Rooms		X		
Dining Facilities			X	
Offices	X			
Public/Common Areas (day room, tv lounge, etc)			X	
Sleeping Rooms	X			

TABLE 1: TYPICAL END USE DESCRIPTIONS

Typical End Use Description	Typical End Use Recommendation			
	Moderate	Heavy	Severe	Extreme
Medical Facilities (excluding patient treatment areas)				
Assisted living areas		X		
Chapels	X			
Classrooms		X		
Clinical Waiting Areas (outpatient, pharmacy, etc)			X	
Consultation Rooms		X		
Dining Areas			X	
Entrance Areas (when used with entry way mats)			X	
Libraries	X			
Lobbies			X	
Elevators			X	
Medical Facilities (excluding patient treatment areas)				
Lounges		X		
Offices (Private or Semi-Private)	X			
Patient Rooms		X		
Playrooms, Child Waiting Areas			X	
Staff Sleeping and Watch Areas	X			
Military Housing				
Bachelor Enlisted Quarters				
Dining Facilities			X	
Offices		X		
Public/Common Areas (Day Rooms, Lounges, etc)			X	
Sleeping/Living Rooms	X			
Family Housing				
General Areas		X		
Sleeping Rooms	X			
Office Building				
Classrooms				
Conference Rooms		X		
Corridors		X		
Elevators		X		
Entrance (when used with entry way mats)			X	
Library	X			
Lobby			X	
Lounge		X		

TABLE 1: TYPICAL END USE DESCRIPTIONS

Typical End Use Description	Typical End Use Recommendation			
	Moderate	Heavy	Severe	Extreme
(cont.)				
Private Office	X			
Transportation Service Areas				
Airport Ticketing Area				X
Airport Concourse				X
Rail Cars				X
Buses and Bus Ticketing Areas				X
Retail Stores				
Offices		X		
Restaurant & Cafeteria Dining Areas			X	
Sales Areas		X		
Theaters		X		
Educational Facilities and Training Buildings				
Classrooms			X	
Corridors			X	
Staff/Administration Offices	X			
Youth Centers			X	

A. BROADLOOM CARPETS

Select the carpet type(s) requested in this specification:

- | | | |
|----|--|---------|
| 1. | Broadloom Carpet, Unitary Backing | - _____ |
| 2. | Broadloom Carpet, Synthetic Secondary Backing | - _____ |
| 3. | Broadloom Carpet, Attached Polymer Cushion Backing | - _____ |
| 4. | Broadloom Carpet, Moisture Barrier | - _____ |
| 5. | Broadloom Carpet, Woven | - _____ |

What is the Typical End Use Description of the area(s) covered in the RFP (see Table 1 for examples). There may be multiple end uses for each project. Complete a form for each End Use Area, if multiple products are desired:

From Table 1: Identify the Typical End Use Description Recommendation for this carpet specification (check one):

- | | | |
|----|----------|---------|
| 1. | Moderate | - _____ |
| 2. | Heavy | - _____ |
| 3. | Severe | - _____ |
| 4. | Extreme | - _____ |

Part 1 - Physical Performance Requirements

All carpet(s) must meet all the specified Physical Performance Requirements listed below:

A.

Tuft Bind (ASTM D-1335)

If cut pile – 3.0 lbs. minimum average value.

If loop pile – 10 lbs. minimum average value.

If woven- 4.4 lbs. (loop pile) or 2.2 lbs. (cut pile) minimum value.

B.

Colorfastness (all specified colors must be tested for crocking and colorfastness to light)

B.1 Crocking (AATCC 165): Color transfer Class 4 minimum, wet and dry, when tested as specified.

B.2 Colorfastness to Light (AATCC 16, Option 3): Color change between the exposed and unexposed carpet areas equivalent to a minimum of Grade 4 on the Gray Scale for Color Change after an exposure of 40 AFU (AATCC fading units) for all specified colors

C.

Electrostatic Propensity (AATCC 134)

General use commercial carpet – 3.5 kV max (step only).

Note: specifiers should be aware that static sensitive applications such as computer clean rooms, etc., might require additional testing beyond the scope of this document.

A. BROADLOOM CARPETS

D.

Flammability Properties

Carpet installation must comply with all applicable flammability regulations for the end-use application selected. Check state and local building and fire codes for specific requirements.

D.1

Federal Flammability Standards

All carpets must comply with the small scale flammability ignition source, 16 CFR 1630 and/or ASTM D-2859 (Methenamine Pill Test).

D.2

Flooring Radiant Panel Test (ASTM E-648), if required.

_____ Class I required (minimum 0.45 watts/cm²)

_____ Class II required (minimum 0.22 watts/cm²)

_____ Not required for this project.

D.3

Smoke Density (ASTM E-662), if required.

_____ Less than 450 corrected optical density (flaming mode).

_____ Other Requirement (specify)

_____ Not required for this project

E.

Indoor Air Quality (Note: The CRI Green Label Plus program is compliant with California Department of Public Health (CDPH) Section 01350 Version 1.2.)

E.1

Carpet

Compliance with the CRI Green Label Plus™ Indoor Air Quality Carpet Testing program.

E.2

Installation Adhesives and Seam Sealers

Compliance with the CRI Green Label Plus™ Indoor Air Quality Adhesive Testing program.

E.3

Cushion and Underlayment (when used)

Cushions or padding installed under the carpet must be compliant with the CRI Green Label Plus™ Indoor Air Quality Cushion Testing program.

F.

Delamination (if applicable)

Minimum of 2.5lbs. per inch delamination resistance as ASTM D-3936.

G.

Cushions (always use manufacturer recommended cushions)

G.1 _____ Include information on appropriate cushion to be installed with this bid.

G.2 _____ This bid requires a pre-attached cushion

G.3 _____ This specification requires no cushion

A. BROADLOOM CARPETS

Part2-ProductCharacteristics

A.

Carpet Construction Materials

A.1 Pile (Face) Fiber Types Desired: _____

A.2 Secondary Backing Materials Desired: _____

B.

Carpet Construction

B.1

Surface Texture: _____(state desired textures or select below).

Cut Pile - _____

Cut and Loop - _____

Loop Pile - _____

Tip Shear - _____

B.2

Average Finished Pile Yarn Weight (ASTM D-5848)

Ounces/square yard __. Note: +/- 7% tolerance of specified ounces/square yard yarn weight is acceptable when finished carpet is tested.

B.3

General Colors Required:

1. _____

2. _____

3. _____

Part 3 – Test Procedures References

Table 2: Tests and Methods

TEST	METHOD
Average Pile Weight (Tufted or Woven).....	ASTM D 5848
Tuft Bind.....	ASTM D 1335
Flammability - Small Scale Ignition Test.....	16 CFR 1630 or ASTM D 2859
Flammability - Flooring Radiant Panel.....	ASTM E 648
Smoke Density	ASTM E 662
Colorfastness to Crocking.....	AATCC 165
Colorfastness to Light.....	AATCC 16, Option 3
Indoor Air Quality.....	CRI Green Label Plus
Delamination Resistance.....	ASTM D 3936
Electrostatic Propensity.....	AATCC 134
Dimensional Stability.....	ISO 2551

A. BROADLOOM CARPETS

Part 4 - Suggested Submittals

By Vendor (in response to the bid proposal):

A.

Provide reports documenting the results of the tests by a NVLAP approved laboratory:

- _____ Electrostatic Propensity
- _____ Flooring Radiant Panel Test
- _____ Smoke Density
- _____ Pill Test

B.

Provide product data information from manufacturer to include:

- _____ Catalog data and product specification sheet.
- _____ Manufacturer's printed installation instructions for carpet, floor preparation, seaming techniques, and other installation accessories.
- _____ Information on manufacturer recommended adhesives.
- _____ Information on environmental claims or requirements such as recycled content, recyclability, etc. if applicable.
- _____ Information on manufacturer's recommended maintenance instructions.
- _____ Manufacturer's published or written warranty information.

C.

Provide samples of carpet as requested showing quality, pattern and color specified. Include samples of associated installation materials such as cushion, adhesive, moldings, and wall base when available.

By Specifier (to Vendor):

A.

Provide shop drawings of areas to be carpeted showing seams and cut sheet for carpet. Make sure to specify desired installation patterns or extras (such as cove base, borders, etc).

B.

Information about the subfloor type, composition, and concrete moisture measurements (relative humidity or moisture vapor emission rates).

C.

Describe the area to be carpeted (primary uses, unusual situations, etc).

B. MODULAR TILE

Select the carpet type(s) requested in this specification:

Tile Carpet - _____
 Tile Carpet, Cushion Backing - _____

What is the Typical End Use Description of the area(s) covered in the RFP (see Table 1 for examples). There may be multiple end uses for each project. Complete a form for each End Use Area, if multiple products are desired:

From Table 1: Identify the Typical End Use Description Recommendation for this carpet specification (check one):

1. Moderate - _____
2. Heavy - _____
3. Severe - _____
4. Extreme - _____

Part 1 -Physical Performance Requirements

All carpet(s) must meet all the specified Physical Performance Requirements listed below:

A.

Modular Tile Dimensional Stability: +/- 0.15% maximum (ISO 2551)

B.

Tuft Bind (ASTM D-1335): Modular

If cut pile: 3.0 lbs. minimum average value

If loop pile: 8.0 lbs minimum average value

C.

Delamination Resistance of the Secondary Backing: 2.5 lbs. per inch minimum (if applicable) (ASTM D3936)

D.

Colorfastness (all specified colors must be tested for crocking and colorfastness to light)

D.1 Crocking (AATCC 165): Color transfer Class 4 minimum, wet and dry, when tested as specified.

D.2 Colorfastness to Light (AATCC 16, Option 3): Color change between the exposed and unexposed carpet areas equivalent to a minimum of Grade 4 on the Gray Scale for Color Change after an exposure of 40 AFU (AATCC fading units) for all specified colors.

E.

Electrostatic Propensity (AATCC 134)

General use commercial carpet – 3.5 kV max (step only).

Note: specifiers should be aware that static sensitive applications such as computer clean rooms, etc., might require additional testing beyond the scope of this document.

B. MODULAR TILE

F.

Flammability Properties

Carpet installation must comply with all applicable flammability regulations for the end-use application selected. Check state and local building and fire codes for specific requirements.

F.1

Federal Flammability Standards

All carpets must comply with the small scale flammability ignition source, 16 CFR 1630 and/or ASTM D-2859 (Methenamine Pill Test).

F.2

Flooring Radiant Panel Test (ASTM E-648), if required.

_____ Class I required (minimum 0.45 watts/cm²)

_____ Class II required (minimum 0.22 watts/cm²)

_____ Not required for this project.

F.3

Smoke Density (ASTM E-662), if required.

_____ Less than 450 corrected optical density (flaming mode).

_____ Other Requirement (specify)

_____ Not required for this project

E.

Indoor Air Quality (Note: The CRI Green Label Plus program is compliant with California Department of Public Health (CDPH) Section 01350 Version 1.2.)

E.1

Carpet

Compliance with CRI Green Label Plus™ Indoor Air Quality Carpet Testing program.

E.2

Installation Adhesives and Seam Sealers

Compliance with the CRI Green Label Plus™ Indoor Air Quality Adhesive Testing program.

E.3

Cushion and Underlayment (when used)

Cushions or padding installed under the carpet must be compliant with the CRI Indoor Air Quality Cushion Testing Green Label Plus™ program.

F.

Delamination (if applicable)

Minimum of 2.5lbs. per inch delamination resistance as ASTM D-3936.

G.

Cushions (always use manufacturer recommended cushions)

G.1 _____ Include information on appropriate cushion to be installed with this bid.

G.2 _____ This bid requires a pre-attached cushion

G.3 _____ This specification requires no cushion

B. MODULAR TILE

Part 2-Product Characteristics

A.

Carpet Construction Materials

A.1 Pile (Face) Fiber Types Desired: _____

A.2 Secondary Backing Materials Desired: _____

B.

Carpet Construction

B.1

Surface Texture: _____ (state desired textures or select below).

Cut Pile - _____

Cut and Loop - _____

Loop Pile - _____

Tip Shear - _____

B.2

Average Pile Yarn Weight (Tufted or Woven): _____ ounces/square yard (ASTM D-5848)

Note: +/-7% tolerance of specified ounce/square yard yarn is acceptable when finished carpet is used.

B.3

General Colors Required:

1. _____

2. _____

3. _____

Part 3 – Test Procedures References

Table 2: Tests and Methods

TEST	METHOD
Average Pile Weight (Tufted or Woven).....	ASTM D 5848
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Colorfastness to Crocking.....	AATCC 165
Colorfastness to Light.....	AATCC 16, Option 3
Indoor Air Quality.....	CRI Green Label Plus
Delamination Resistance.....	ASTM D 3936
Electrostatic Propensity.....	AATCC 134
Dimensional Stability.....	ISO 2551

B. MODULAR TILE

Part 4 - Suggested Submittals

By Vendor (in response to the bid proposal):

A.

Provide reports documenting the results of the tests by a NVLAP approved laboratory:

- _____ Electrostatic Propensity
- _____ Flooring Radiant Panel Test
- _____ Smoke Density
- _____ Pill Test

B.

Provide product data information from manufacturer to include:

- _____ Catalog data and product specification sheet.
- _____ Manufacturer's printed installation instructions for carpet, floor preparation, seaming techniques, and other installation accessories.
- _____ Information on manufacturer recommended adhesives.
- _____ Information on environmental claims or requirements such as recycled content, recyclability, etc. if applicable.
- _____ Information on manufacturer's recommended maintenance instructions.
- _____ Manufacturer's published or written warranty information.

C.

Provide samples of carpet as requested showing quality, pattern and color specified. Include samples of associated installation materials such as cushion, adhesive, moldings, and wall base when available.

By Specifier (to Vendor):

A.

Provide shop drawings of areas to be carpeted showing tile installation orientation (monolithic, ¼ Turn, random, ashlar, brick) for carpet. Make sure to specify desired installation patterns or extras (such as cove base, borders, etc).

B.

Information about the subfloor type, composition, and concrete moisture measurements (relative humidity or moisture vapor emission rates).

C.

Describe the area to be carpeted (primary uses, unusual situations, etc).