

# Selecting Carpet for Your Home

Fact Sheet No. 9.535

Consumer Series | Housing

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Carpet adds warmth, comfort, and is quieter than hard surfaces in your home. Today's consumers can choose from an array of styles, patterns, fibers, textures, and performance characteristics. Residential carpet represents a substantial financial investment for consumers. An informed choice about carpet requires a balance between style requirements and practical considerations. Think about your budget, the amount of traffic the carpet will receive, and the amount of maintenance required. Assess your carpeting requirements by completing the following preliminary carpet needs analysis.

1. What room or rooms will be carpeted? Consider the best flooring options for your room use.
2. Are the spaces to be carpeted high, medium, or low traffic areas?
3. What is your budget? Cost of carpet includes an appropriate pad under the carpet and an amount for installation per square yard. For each carpet sample you consider, get the price per square yard for carpet, pad, and installation. Also include the service charge of removing old carpet and moving your furniture. Keep this information in a notebook or on cards so you can compare samples.
4. How many square yards of carpet do you need?
  - Measure the length and the width of each room in feet,
  - Multiply these numbers together and divide by 9, and
  - Add square yardage numbers for each room. Add 10 percent to account for room irregularities and pattern match.
  - Carpet usually comes in 12-foot rolls. Carpet dealers can help calculate how much carpet you will need if you

have an estimate that includes the measurements of the rooms.

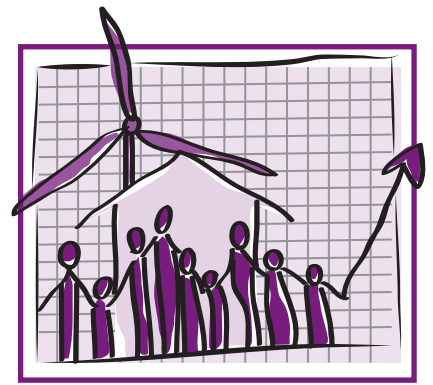
- Make sure the installer re-measures the rooms for a precise calculation for hallways and closets, matching patterns, seam placement, and for any stair steps.

## Fiber and Construction: Basic Carpet Components

Table 1 lists the carpet fibers used for residential carpet and their major characteristics. Tufted carpet accounts for the bulk of carpet on today's market. It consists of yarn inserted into a primary backing that creates a pile or three-dimensional textile. A secondary backing is applied with an adhesive to strengthen and stabilize the carpet. Table 2 shows the three general types of tufted carpet construction: cut pile, loop pile, and cut and loop pile. The following terms describe additional features of tufted carpet.

- **Density:** how tightly carpet fiber or yarn is packed together and bound into the carpet backing. The denser, the better.
- **Face or pile weight:** the number of ounces of fiber in a square yard of carpet; applies to the pile yarn.
- **Pile height:** the height of the cut pile yarns or uncut loops when measured from the primary backing.

All three terms are associated with the quality of carpet. High density and high face weight mean more yarn covers the primary backing. The result is increased durability and appearance retention. While longer pile may look luxurious, it crushes more easily. Berber is a type of weave, not a fiber type. Berber carpet simply means that the fibers are a loop style. Generally it has the same height loops, but Berber can be made with various heights of loops or it can be mixed with cut loops of the same or different heights.



## Quick Facts

- To make an informed choice about carpet consider your budget, how much traffic the carpet will receive, and how much maintenance is required.
- Wool carpet is expensive, has an excellent crush resistance, and moderately resists stains.
- Nylon carpet may have built-in static control, has excellent abrasion and crush resistance, and cleans easily.
- Tufted carpet accounts for the bulk of the carpet on today's market.
- Keep records of a carpet purchase and installation in case problems develop.

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**Table 1. Properties of fibers used in residential carpeting.**

Fiber	Properties
Wool: Expensive, soft feel, luxurious appearance, easy to dye.	Fair abrasion resistance, excellent crush resistance, moderate resistance to stains, attacked by moths, poor sunlight resistance, burns slowly, self-extinguishes in flames.
Nylon: Easy to dye, may have built-in static control; trade names: Anso, Antron, Ultron, Zeftron.	Excellent abrasion and crush resistance, can be manufactured to conceal and resist soil, cleans easily, poor sunlight resistance, burns slowly with melting.
Polyester: Relatively inexpensive and is used in moderate to low traffic areas. Trade names: Pentron, Trevira.	Moderate abrasion resistance, may show some pilling, crush resistance depends on density, resists water-soluble stains, good sunlight resistance, burns slowly with melting.
Olefin: Can be used indoors and outdoors, light weight, and inexpensive. Trade names: Marquesa Lana, Genesis.	Excellent abrasion resistance, poor crush resistance, poor sunlight resistance, excellent stain resistance, easy to clean, extremely heat sensitive, and burns with melting.

**Table 2. Types of tufted carpet.**

Type of Pile (Examples)	Construction	Characteristics
Cut pile	Saxony plus velour	Individual standing tips, wide range of densities, suitable for most living spaces.
Loop pile	Level loop Berber	Loops form the surface of the carpet, tend to be very durable.
Cut and loop pile	Sculptured	Wide variety of patterns and designs, random patterns tend to hide soil.

## Performance Criteria

Consumers want to know how a carpet will wear and how it will look over time. You must balance the descriptive characteristics of fiber and construction with the performance criteria required for your needs. How diligent will you be with keeping your carpet clean? How many animals and children will be using this carpet? Table 3 presents performance criteria and what to look for in carpet related to health and safety, durability, and maintenance.

Consult reliable dealers who carry dependable brand names. Ask to see the guarantees before you purchase. Keep track of information from each dealer to make selection easier. Read the labels on the back of carpet samples to determine fiber content, descriptive characteristics, and expected performance. By comparing the types of fibers available and assessing your needs, you will be able to make an informed choice about carpet.

Natural fibers have become more popular and can look fabulous; however, they can be hard to clean and less durable. Sisal, sea grass, jute, and coir are a few natural fibers used in carpeting. Select a tight weave for maximum comfort. Fiber and surface treatments (such as Investa Stainmaster, Solutia WearDated, and 3M Scotchgard) for carpets are manufactured to strict standards set by the company. Technology continues to help manufacturers create better carpets, including those with odor-eliminating agents that are all natural and built into the carpet.

## Other Considerations

Padding is also an important consideration in the investment and life of your carpet. It is worth spending money on good padding to prolong the life of carpet, increase its comfort, and provide sound insulation. Pads are constructed from flat rubber, foam, felt, or rubberized felt. Consider carpet pads with antimicrobial treatments that combat odors and mold; a solid moisture barrier that keeps spills from penetrating; and hypoallergenic attributes.

Use caution when evaluating rating systems across manufacturers. These rating systems may be based on opinion and not strict testing methods. Be sure you understand any warranties that are included with your new carpeting. Know exactly what to expect if you read “25-year abrasive wear, 7-year stain and soil resistance, 5-year texture retention, and lifetime anti-static.” All warranties are not equal. Ask if they include the cost of labor and are not pro-rated. Also realize that the sample carpet you see will not be exactly the same as the carpet color that gets installed in your home.

Consumers should consider the criteria most important to household use of the floor area and compare various carpet performance criteria and guarantees. The cost of carpet is based on many factors, including fiber, construction, quality, and design. The total project includes the cost of cushion and installation. Be wary of the cheapest products or services. Ask your retailer to provide you a complete cost estimate – one that includes cushion, installation, moving of furniture, hauling

off old flooring materials, and any special needs that you may have. Remember that a high quality, professional installation can extend the life of your investment.

Keep the identifying label from the plastic that the carpet comes wrapped in. This can be your official record showing that you received what you ordered. Also keep a scrap of the carpet and file that along with the label, sales receipt, and warranty. This documentation can be important if you later experience a problem.

As one of the most important choices for your home, select carpet that suits your lifestyle, is within your budget, and meets your preferences of design, warmth, sound insulation, quality, and cost. Carpet can provide you with satisfaction for many years.

## References

- American Society of Interior Designers. (1994). *Indoor air quality*. Washington, DC: ASID.
- Better Homes and Gardens. (2001). *Making a home*. Des Moines, IA: Better Homes and Gardens Books.
- Bukowski, S. (2004). *Flooring instant answers*. New York: McGraw-Hill.
- Carpet and Rug Institute. (2007). *The carpet primer*. Available: [www.carpet-rug.org/residential-customers/resources/carpet-primer.cfm](http://www.carpet-rug.org/residential-customers/resources/carpet-primer.cfm)
- Carpet and Rug Institute. (2007). *Why choose carpet for your home?* Available: [www.carpet-rug.org/residential-customers/index.cfm](http://www.carpet-rug.org/residential-customers/index.cfm)

**Table 3. Carpet performance criteria and what to look for.**

<b>Health and Safety</b>	
Flammability	Carpeting is required to be fire resistant. Carpet samples should state the standards the carpet meets.
Indoor Air Quality	Follow these guidelines to keep indoor air pollution under control: <ul style="list-style-type: none"><li>• ask your carpet retailer for information on emissions from carpet</li><li>• ask for low-emitting adhesives if adhesives are needed</li><li>• be sure the retailer requires the installer to follow Carpet and Rug Institute installation guidelines</li><li>• be sure the ventilation system is in proper working order before installation begins</li><li>• open doors and windows, if possible, during installation; consider using window fans, room air conditioning units, or other means to exhaust emissions to the outdoors</li><li>• operate the ventilation system with maximum outdoor air during and after installation for 48 to 72 hours</li><li>• consider leaving the premises during and immediately after carpet installation; you may wish to schedule the installation when most family members will be out of the house</li><li>• contact your carpet retailer if objectionable odors persist</li><li>• follow the manufacturer's instructions for proper carpet maintenance</li></ul>
<b>Durability</b>	
Appearance Retention	Factors that contribute to loss of appearance include crushing, soiling and abrasion. <ol style="list-style-type: none"><li>1. Crushing is a function of fiber type, pile height and density.</li><li>2. Soiling depends on fiber properties as well as maintenance.</li><li>3. While most carpet fibers are manufactured to resist abrasion, yarn deterioration and distortion can occur under abrasive conditions.</li></ol> There are trade-offs associated with all carpet fibers. For example, olefin tends to crush more easily than other fibers, but is extremely resistant to stains, fading and moisture. Wool is resilient and luxurious, but has only moderate resistance to stains. Consumers should look at the criteria most important to them.
Colorfastness	Colorfastness is the ability of the carpet to withstand color changes due to sunlight, abrasion, chemicals and cleaning. <ol style="list-style-type: none"><li>1. UV light can seriously damage textiles by increasing fading and causing deterioration of the fibers. Make sure that carpet exposed to intense sunlight is protected by window treatments that filter light or choose sunlight resistant fibers.</li><li>2. Most carpet meets or exceeds colorfastness requirements. Solution-dyed carpet means that the dye is added to the fiber as it is manufactured and is extremely colorfast. Yarn-dyed carpet provides color variation and is colorfast as well.</li></ol>
Dimensional Stability	The greatest potential for shrinkage comes from improper care. Be sure to follow the manufacturer's guidelines for cleaning and avoid overwetting carpet during care.
<b>Maintenance</b>	
Preventive	<ul style="list-style-type: none"><li>• Use walk-off mats at all entrances to absorb soil and moisture. Clean mats regularly so they don't become sources of soil themselves.</li><li>• Use a quality pad under your carpet, particularly on stairs. A good pad gives better resilience underfoot and extends the life of your carpet.</li><li>• Move heavy furniture occasionally to avoid excessive pile crushing.</li><li>• Protect your carpet from prolonged periods of direct sunlight with blinds, shades or awnings.</li><li>• Vacuum thoroughly and frequently, particularly in high-traffic areas, to remove the dry soil. As particles of dry soil work down into the pile, they are more difficult to remove and can scratch the fibers leading to premature wear of the carpet.</li><li>• Remove spills and stains promptly.</li><li>• Clean your carpet every 12 to 18 months according to the manufacturer's recommendation.</li></ul>
Soil Resistant Finishes	There are a variety of techniques used to hide or minimize soil accumulation on carpet. Manufacturers can produce carpet fibers with nonround cross-sections to hide soil until cleaning takes place. Fluorocarbon compounds are added to polymer spinning solutions to add built-in soil repellency. Application of surface finishes can coat fibers to make stain and soil removal easier.

Goldsmith, E. (2005). *Carpet cleaning tips for dummies*. New York: Wiley Publishing.

Jackson, M., and O'Brien, J. (2005). *Rug and carpet book*. Whitefish, MT: Kessinger Publishing.

Reznikoff, S.C. (1989). *Specifications for commercial interiors*. New York: Whitney Library of Design.

U. S. Environmental Protection Agency. (2007). *Greening your purchase of carpet*. Available: [www.epa.gov/epp/pubs/carpets2.htm](http://www.epa.gov/epp/pubs/carpets2.htm)

Yeager, J. (1988). *Textiles for residential and commercial interiors*. New York: Harper and Row.

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