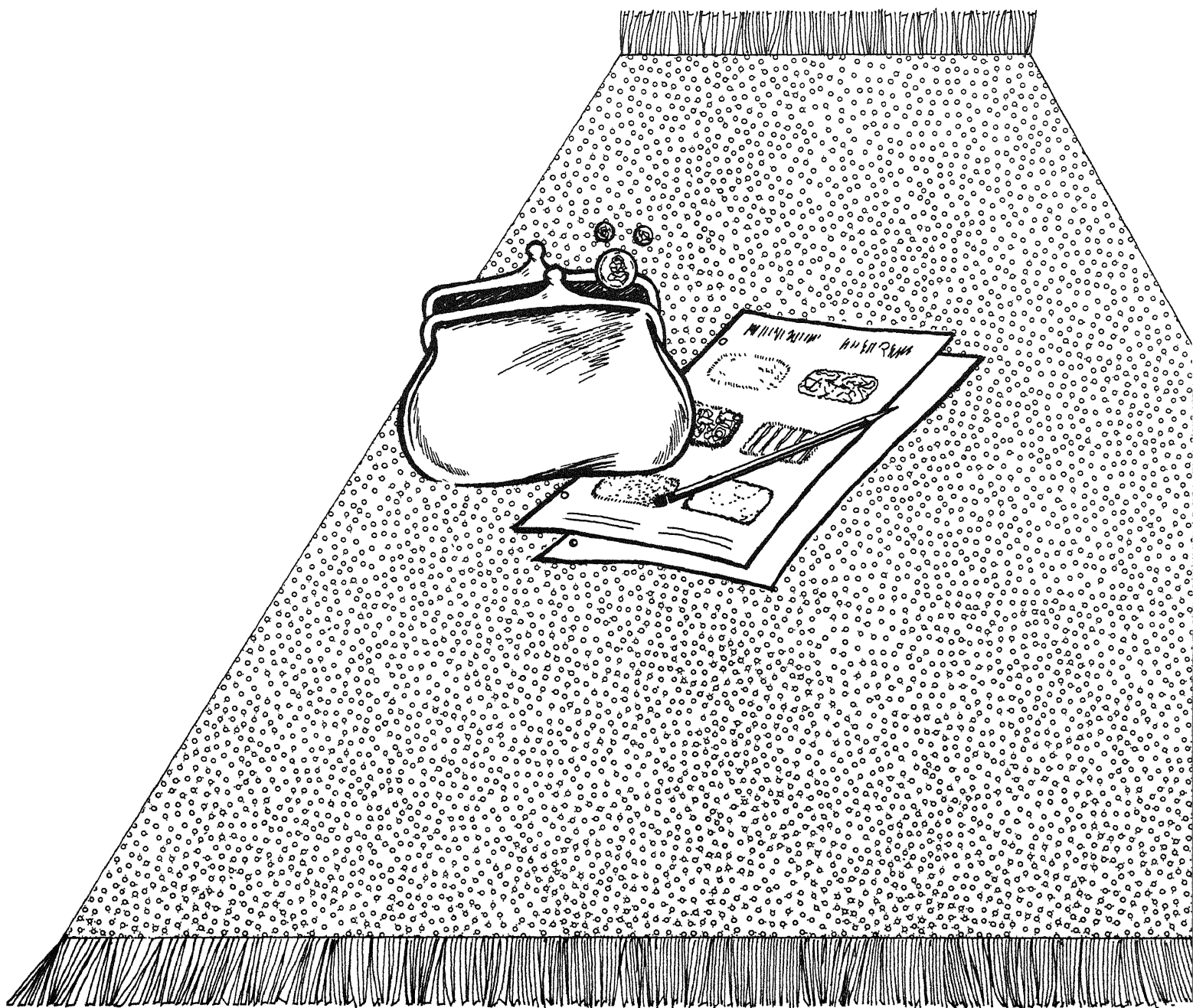


# CHOOSING CARPETS AND RUGS



*Acknowledgment is made to Miss Doris Snook, former Extension Specialist, Housing and Furnishings, for help in the preparation of this bulletin.*

7/69—7M

---

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Roy M. Kottman, Director of the Cooperative Extension Service, The Ohio State University.

# CHOOSING CARPETS AND RUGS

By **DOROTHY S. TEATER**, Extension  
Specialist, Housing and Furnishings

Rugs and carpets help to make a home attractive, and add a special warmth to room decor. Since the floor of a room is a large area, the floor covering will have a considerable influence on the appearance of the room. Many new fibers and methods for constructing rugs and carpets are available on today's market. As a result, the shopper has a vast selection of soft floor coverings from which to choose.

## Consider Needs Before Selecting

Rugs and carpets are major investments and are likely to be used for a long time. Choose them carefully, with the needs and activities of the family considered. Answer the following questions before selecting a rug or carpet:

1. What is it to do? Is its purpose to add color or pattern to the present decorating plan? If so, what will best do this? Is it to add warmth, quietness, comfort, or safety? Will it change the apparent size or shape of a room? Will it go with future changes in walls, draperies, or upholstery? These are usually changed or replaced more often than rugs or carpets.

2. Where is it to be used and by whom? Is it in the living area which opens directly to the outside, the dining area where there is likelihood of food spots and stains, or the bedroom which receives little traffic? Is it used by children or adults, and how many? What kind of dirt will be tracked in?

3. How long is it to be used? Is this a temporary floor covering because of moving, because of changes in family living situations, or changes in number or ages of family members? Will it be permanently installed wall-to-wall or be room size? Will an area rug serve the purpose, or will it merely be a fashionable addition to the decor?

4. How much and what kind of care will it receive? Will it be vacuumed regularly? Can it have on-location cleaning? Can it be sent to a reliable rug cleaning establishment? Can it be washed in a commercial washer? Can it be turned or moved to

equalize wear? What will care and cleaning charges be?

5. How much money is to be spent for the floor covering? How much carpeting is needed? What is the very best quality you can afford? How much will a suitable rug pad cost? Is there an installation or binding charge?

6. What do you want most—luxury, long life, or ease of maintenance?

The appearance and wearability of a floor covering depend on the kind of pile fiber, the kind, firmness, and flexibility of the backing, and the colorfastness.

## Construction

On the market there are five types of carpet construction in general use for machine-made carpets. **Tufted** is the most common method; The other types—**woven**, **knitted**, **needlepunched**, and **flocked**—are also available, and the buyer should know the differences.

**Woven** carpet is constructed on a loom in one of four kinds of weaves which name the carpet. They are **Axminster**, **Velvet**, **Wilton**, or **Chenille**. For all of these weaves, the loom interweaves the pile yarn simultaneously with the backing of jute or other fiber. The back may then be coated with latex. Because of the many major refinements and improvements in these weaves, it is no longer possible to characterize a carpet only by its process of construction.

The **tufted** process has added more variety to choices of carpets. In this process, the yarn for the pile is sewn with wide multiple-needle machines to a broad fabric backing, usually jute, but cotton canvas may be used. The back is then coated with latex to hold the tufts in place and add to body and stiffness. Good quality tufted carpets have a double backing. This may be either (1) a screen of lattice-like material over the regular fabric or jute backing or (2) burlap applied over the backing and the latex. In the first method the latex is evident, and in the second method the latex is covered by the burlap.

**Knitting** is a fairly new process. The pile yarn and the backing fiber are put together simultaneously on a knitting machine. All the pile yarn is held on top of the backing rather than being a part of it as in woven carpet. This is a faster process than weaving, but not as fast as tufting. The latex coating adds strength and body and helps anchor the yarns.

**Needlepunching** is the process where the fibers are "felted" to an inner core, and the result is a flat, non-pile texture. The carpet may be the same on both sides, although if there is a printed design this may appear on only one side of the carpet. The inner core is usually of polypropylene fiber.

**Flocked carpet** is made by a process entirely different from any other methods of carpet making (see illustration below). Nylon fibers are cut into short lengths called tows. The tows are put into a hopper with the openings of the hopper directly above an electrically charged field. The carpet backing is coated with a sticky adhesive. This is conveyed through the space between the hopper and the charged field. The electric charge draws the tow onto the carpet back, into which it sticks in an upright position. The vinyl resin adhesive is then heat set to hold the fiber tow in place. The pile on this type of carpet can be made extremely dense. Because of uprightness of the fibers, the flocked carpet is not very soft to the touch and is not recommended for use where a luxurious installation is desired. But it can be used for kitchens, bathrooms, hallways, and family rooms.

**Yarn** used for making carpets should be strong, smooth, and resilient, to make a crush-resistant pile. Several strands are twisted together to get the strength needed for carpets and rugs and to form the yarn. This is referred to as the **ply**. A higher ply does not necessarily indicate a higher quality, but it does affect the texture of carpet. Yarns that are too soft and loosely twisted soon develop a fuzzy and matted pile. A twist-pile carpet has had the yarn specially treated to retain its twist.

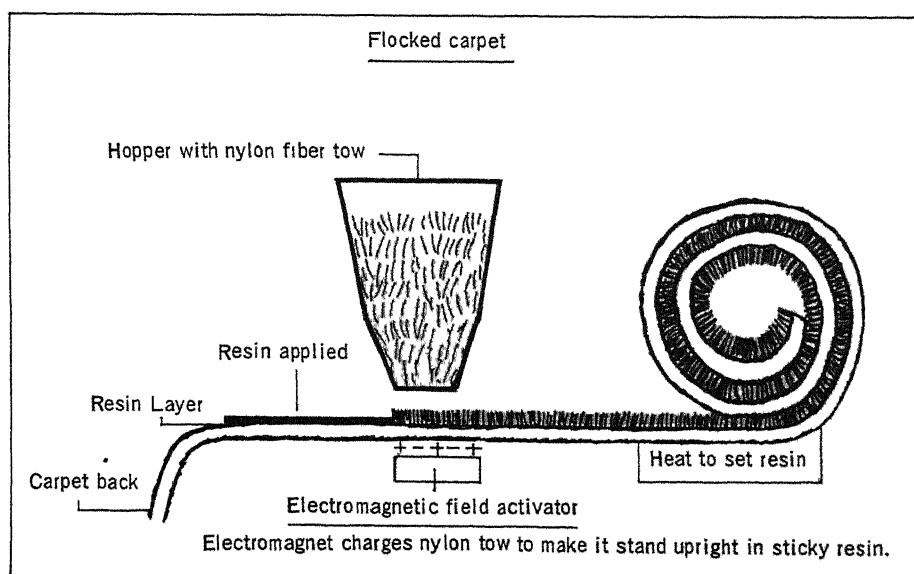
**Height of pile** does not always determine the length of wear. The density of pile is more important. High pile may give a luxurious appearance and feel, but it mats down unless closely packed. High pile may not recover from crushing as well as the short, dense pile.

**Density of pile** is the closeness of the rows and the closeness of the individual tufts of surface pile. The closer the tufts, the more durable the carpet. Test for density by folding back one corner of the carpet or rug.

The density of pile plus the height of pile make up the total amount of yarn in the surface of the carpet. A measure of this is the **face weight** expressed in ounces. A 20-ounce face weight is a medium quality carpet. The heavier the face weight, the higher the quality. A salesman can tell the face weight of a carpet.

The underside of the carpet must hold the pile yarns in position and provide a firm foundation. Quality woven backing is sturdy material (usually cotton jute, carpet rayon, craft cord, or polypropylene) and is tightly constructed but flexible enough to roll easily without bending or cracking. In woven rugs, each row or ridge on the back corresponds to a row of surface pile (a good place to see pile density) and should be spaced closely. The backs of tufted carpets are often covered with latex, and the construction is not visible. But if the rows of tufts are visible on the back, look for closely spaced rows of tufts.

All needle-punched, knitted carpet and much woven carpet is coated on the back with latex to seal the tufts and add body and dimensional stability. It is no longer a method of adding weight or firmness to cover poor quality construction or inferior yarns. With this finish, a clean edge can be cut in any direction; binding is desirable but not necessary. A burned or damaged area can be cut out and replaced without a seam.



## Fibers and Floor Coverings

Carpets and rugs must be labeled as to fiber content of the face pile, or outer surface, of the floor covering. The Textile Fiber Identification Act requires labels on carpets to include (1) the generic names and percentages by weight of fiber contained in order of importance (exclusive of decorative trim if present in amounts of 5% or more). When less than 5%, the label must state "other fiber" or "other fibers." (2) The name of the manufacturer or the person marketing or handling the product. (3) The name of the country where manufactured or processed, if the product was imported. The law does not require the identification of the backing.

The following charts give some information concerning the fibers used for carpet construction.

### NATURAL FIBERS

<b>Wool</b>	Traditionally regarded as the ideal fiber. It has good resistance to abrasion such as scuffing; excellent resilience; resists soil; and cleans satisfactorily. It takes and holds dye well, and fading is seldom a problem. When blended with 20% to 30% nylon, the excellent characteristics are maintained, and the resistance to abrasion and strength are increased. Price is medium to high.
<b>Cotton</b>	A soft, strong fiber, available in a wide range of colors and textures. It is not resilient. Crushing is generally a problem. It tends to show and hold soil. Special soil-retardant finishes may be applied at the factory and are more or less permanent. Type and frequency of cleaning should be considered. It is in the low-to-medium price range.

### MAN-MADE

Generic Name	Brand Name	Characteristics
Acrylic	Acrilan	Good to excellent resistance to abrasion, soiling and crushing. It is the fiber most like wool in feel, appearance, and handling. Seems to hold its texture during wear and cleaning. Medium-to-high price range.
	Creslan	
	Orlon	
	Zefran	
	Zefkrome	
Modified Acrylic (modacrylic)	Dynel	Problems include possible pilling of Verel, and low resilience of Dynel. Used primarily in blends with acrylics to provide fire resistance. Some uses of 100% of fiber in scatter rugs. Price range medium to high.
	Verel	
Rayon	Avilcolor	Unless high degree of density in construction, resistance to soiling and abrasion and resiliency are poor. Used primarily for scatter or room-size area rugs. Dense construction could provide rugs for short-time use or light wear in the low-to-medium price range.
	Avicron	
	Corval	
	Fibre	
	Kolorbon	
	Skybloom	
Filament Textured Nylon	Caprolan	Same basic properties as staple yarn plus no pilling problem and even longer wear. Better hand due to bulking of yarn. Recent dye research makes greater versatility. Low and medium price range. Static electricity build up has been reduced in Antron and Cadon. Manufacturers claim less soiling.
	Cumuloft	
	Du Pont 501	
	Tycora	
	Enkaloft	
	Antron	
Cadon		

Generic Name	Brand Name	Characteristics
Nylon Staple Fiber	Nylon	Probably strongest and longest wearing fiber. May pill in loop pile, but has exceptional resistance to wear. Resilience good to excellent in proper constructions. Soil resistance better in delustered fibers than in bright or semi-print fibers. Safest buy is medium price range. Be sure fiber is first quality nylon. Static electricity causes soil retention.
Polyester	Kodel	Is now being used in tufted broadloom carpets. Wearability, soil resistance, and resilience rated good to excellent by manufacturers. Medium priced.
	Fortrel	
	Vycron 55	
	Vicron	
	Avlin	
	Encron	
Polypropylene (Olefin)	Dacron	Continuous-filament form of fiber now used by carpet manufacturers. Resistance to abrasion and soil good. Resiliency is fair. Some is piece-dyed. Its low rate of moisture absorption and resistance to household chemicals, acids, and alkalis make it suitable for outdoor use.
	Trevira	
	Quintess	
	Herculon	
	Vectra	
	Polycrest	
Saran	Marvess	Used to make a rug intended primarily for outdoor use. It is tough and does not readily absorb moisture.
	Polypropylene I	
	Polybloom	
	Patlon	
Saran	Rovanna	Used to make a rug intended primarily for outdoor use. It is tough and does not readily absorb moisture.

When a carpet is constructed of two or more fibers, each can give the carpet its best characteristics and minimize the less desirable properties. A fiber should compose 20% to 30% of the total fiber content to lend its properties to the product. Nylon is frequently used in blends for its strength and high resistance to abrasion.

Anti-shock carpeting which blends carpet fibers and tiny wires together has been produced. These wires are fiber size and are made of stainless steel or copper coated with tin. The stainless steel fibers are more invisible than the copper type but cannot be used with continuous filament yarns. Copper wire cannot be used in cut pile or plush carpets. The wire fibers conduct the static electricity away from the surface of the carpet. Manufacturers claim that "anti-shock" carpeting soils less readily, has a tendency to wear longer, and is easier cleaned. Some carpets and rugs have an anti-shock chemical treatment applied to them, but this is not permanent and must be reapplied after shampooing.

### Design

Rugs and carpets are expensive furnishings and will probably remain as part of the home decoration longer than any other home furnishing. They cover a large area of a room and are a major part of the total room plan. The choice of color and texture is very important and must receive special consideration.

**Color** in a floor covering should be a versatile one that will lend itself to several color combinations. Special attention to color choice is especially important if the carpet is permanently installed. Color can make a room look larger or smaller, cool or warm, restful or busy. Decide on the purpose of the color in a rug or carpet before purchasing. Natural and artificial light used in the home may affect the appearance of the color in the rug or carpet, so obtain as large a sample as possible, and look at it in the room in which it will be used in daylight and under artificial light.

Very light and very dark colors will show the footprints and soil more quickly than colors in medium tones. Heavy traffic areas naturally show soil and footprints more than other areas, so choice of color for these areas must be carefully considered.

Select a color you will enjoy and like for a long time and that will add to your decorating plan.

Texture and pattern in a soft floor covering is created by use of various heights of pile, cut and uncut pile together, and various colors or shades of one color used together. The advantages of using patterns in a floor covering are (1) there is less tendency to show soil, (2) lends character to the decorating scheme, and (3) more than one pattern can be used together if of similar kind. Patterns establish a mood, and redecorating may become a problem. Bold design is very limiting, and you may tire of the pattern sooner than that of a plain rug or carpet. Use a small pattern in a small room and a larger pattern in a large room.

### Sizes

Rugs are available in standard widths—9, 12, 15 feet—and any length desired. Carpets are available in many widths. The term "broadloom" refers to certain carpet widths, not to special constructions or quality. Broadloom carpet ranges from 6 to 18 feet in width and permits great expanses of seamless floor covering. All fibers and construction methods can be produced in broadloom widths. Carpet 27 inches in width is used for hall and stair runners and may be seamed for wall-to-wall installations.

Wall-to-wall carpets create an elegant, luxurious feeling in a room. They can increase the apparent size of a room. They also present problems in wear and cleaning. If you plan to install a wall-to-wall carpet, find out what services are available for on-location cleaning.

Room-size rugs give an effect similar to wall-to-wall carpet when they are of suitable size for the room. To give a spacious appearance, a rug should come to within 8 inches of the walls in a small room and 12 inches in a larger room. Room-size rugs can be shifted to distribute wear; they can be easily removed for cleaning in a commercial plant.

### Area Rugs

Area rugs are popular and range in size from 3 x 5 feet to 12 x 15 feet. Shapes may be round, oval, rectangular, or free-form. The size and shape of a room and area to be defined influence the size and shape of an area rug. Avoid a small rug in a large area. The purpose of an area rug is to unify or emphasize a particular part of a room such as a dining area, game area, or conversation grouping. Such rugs may accent this area with color and/or design and can be used over carpeting, tile, or wood floors.

### Padding

A carpet pad does three things. Its first and most important use is to prolong the life of a carpet. It does this by serving as a buffer for the pounding of traffic on the pile. The pad also increases the sound-absorbing qualities and the softness of a rug and insulates against extreme heat and cold.

**Felted pads** are made of hair or jute or a combination of both. The all-hair is most expensive, but the combination of hair and jute is a good serviceable, resilient pad. Pads of 100% jute mat and absorb moisture. Felted pads are more durable if "rubberized" with a coating of latex on top and bottom. A 40-ounce pad is a good weight for use in the home.

**Rubber pads** are of two types: sponge rubber and foam rubber. Sponge rubber pads are of various thicknesses and are made of small puffs of rubber attached to a fine net backing. Foam rubber pads are foam rubber with a burlap back glued to them. Some carpets now have the foam padding bonded to the carpet. This is a high density foam and more durable than the foam rubber bonded to inexpensive carpet of several years ago.

Rubber pads are softer and more buoyant than hair or jute. They are moth, mold, and mildew proof, non-allergenic, but generally more expensive than the hair pads. A rubber pad of  $\frac{1}{4}$  inch to  $\frac{3}{8}$  inch is usually sufficient for home use. Padding that is too thick is too soft for comfortable walking.

**Urethane** or plastic pads have about the same characteristics as rubber, but are less resilient.

### Special Area Carpets

Since 1963, when the first indoor-outdoor carpet was introduced, several areas in and out of the home have been carpeted which were not considered suitable for carpeting before. Areas now being carpeted are bathrooms, kitchens, patios, carports, porches, swimming pool aprons, playrooms, laundry rooms, basements, and entryways. This has resulted in carpets being made specifically for these areas.

**Indoor-outdoor carpets** can actually be used inside or outside the house and are so labeled. They are constructed in one of two ways.

*Needlepunched* was the first type to hit the market. It has a felted appearance with a flat, non-pile texture and is made of the polypropylene fiber. This is attached to an inner core which is also made of the polypropylene fiber. Printed patterns as well as plain ones are available, and the needlepunched carpets are generally low in price.

*Tufted*—These are made of tufts of nylon, acrylic, or polypropylene fiber. The tufts are attached to a pre-constructed textured latex backing. Texture may be created in these carpets by using looped and cut yarns together in various heights or for a smoother surface with just cut or looped tufts. Tweed, patterned, and, plain designs are available in this indoor-outdoor carpet.

Indoor-outdoor carpeting is made of synthetic materials which are colorfast and will not rot, shrink, or mildew. They are not affected by extremes of heat or cold which are often found outside. Some labels, however, restrict their use. So **read the label!**

**Bathroom** carpeting is a lightweight carpeting. It is usually made of nylon, acrylic, cotton, or polyester. Tufts are fairly long and cut, for a shag-like appearance. Tufts are fastened into a latex backing. This carpet is designed for easy laundering in a machine. Installation is of the temporary type.

**Kitchen** carpeting is similar to indoor-outdoor, but is designed only for indoor use. It is made of one of the synthetic fibers; nylon, acrylic, or polypropylene. These fibers are woven into tight, short tufts which are fastened into a moisture barrier of polypropylene. These two layers are usually bonded to a high-density foam rubber backing. If the carpet does not have a foam backing, then a separate pad is necessary.

Installation involves merely cutting carpet to fit the area and laying it in place. Carpets may be glued with an adhesive or affixed to a double-sided tape for a more permanent installation.

### Definition of Terms

Selection of carpets or rugs is easier when you understand some of the terms used by the manufacturer and retailer.

**Pile**—The tufts of yarn, cut or or uncut, which extend up from the backing and form the face or surface of the carpet.

**Cut pile**—The surface of the carpet is made up of cut ends of the yarn.

**Loop pile**—The pile is one continuous yarn which has not been cut or sheared. All loops are left intact.

**Plush**—This is a cut-pile fabric. It is usually a rather deep pile.

**Twist set**—The result of treating a yarn with extreme heat to give it a more permanent texture. There is less shading of twisted yarns than in cut pile of untwisted yarns.

**Velvet**—A method of construction in which the face yarn is woven over wires which determine the height of the pile. The yarns may be cut or uncut.

**Axminster**—A method of construction with unlimited range of colors and designs. All the yarn is on the surface and the back. Carpet has a stiff rib so it will roll in only one direction.

**Wilton**—Carpet woven on a Jacquard loom so many textures and sculptural patterns are possible. The pile may be cut or uncut. Multi-color designs or solid colors are possible.

**Tufting**—A rug-making process in which a series of needles carries the yarn through a backing fabric of canvas. This fabric is coated with latex to hold the tufts of yarn in place.

**Broadloom**—A term which refers to the width of the carpeting and has no relationship to construction or style. It usually refers to 6 to 18 feet in width.

**Backing**—Material used on underside of carpet to hold the surface, or faced yarns, in place. Two layers are desirable to hold the surface, or faced yarns, in place. Two layers are desirable to provide body and stability.

**Latex**—A liquid or synthetic rubber used on the backing of carpet. It adds dimensional stability and locks the tufts in place.

**Staple Fibers**—Fibers of relatively short length before they are spun into yarn.

**Continuous or long filament fibers**—Refers to unbroken strands which are used to form yarn.

**Texturizing**—A treatment given to continuous filament yarns to give them bulk.

**Resilience**—Refers to the ability of a fiber to spring back after being crushed.

**Pitch**—The number of loops or tufts in a 27-inch width.

**Wires**—Rows of loops or tufts per lengthwise inch.

## Shopping Guides

1. Shop with reliable dealers who carry dependable brands, know their merchandise, and stand behind it. Beware of bargains. Look for the manufacturer's label.
2. Shop at several stores. Compare various floor coverings in your price range.
3. Inspect the pile and backing of various floor coverings; shop with your fingers as well as your eyes.
4. Remember that quality depends on (1) the kind and grade of fiber used, (2) construction of the yarns, (3) density of the pile, and (4) firmness and flexibility of the backing.
5. Check labels and ask for information about the colorfastness, permanence of pile texture, and recommendations for cleaning the floor covering.
6. Choose the best quality your budget permits for rooms which get the heaviest wear. More economical, less resilient fibers might be used in rooms not subjected to heavy traffic.
7. Allow enough in your carpet budget for a pad; it will nearly double the life of your carpet.
8. Get separate costs for the carpet itself, the pad, and installation or binding charges. Know how much you are paying for each item.
9. To estimate costs, measure the length and width of your room or area to be covered. Multiply these figures to get the number of square feet; divide by 9 to get the number of square yards. Then multiply the number of square yards you need by the price per square yard. This figure will give you a basis for comparing costs of various carpets.
10. Choose a color, pattern, and texture suitable for your furnishings and which you will enjoy for a long time. Be sure you "buy" to fit your needs, instead of being "sold."
11. If possible, try out carpet samples in your room in both natural and artificial light. If this is not possible, take samples of your wall finish, draperies, and other furnishings to the store to check suitability of colors, patterns, and textures.
12. Once your floor covering is laid, remember that all new pile fabrics shed or fluff. You will find small balls of fibers in the vacuum cleaner bag and on the surface of heavily-used areas. Shedding does not affect the life of your floor covering.
13. Watch for special ratings given by manufacturers. Some are now indicating fibers and qualities they recommend for certain kinds of use.