



Household Terms & Finish Materials Overview

The following definitions and descriptions are for informational purposes only. They shouldn't be construed as complete and definitive representations, but rather an overview of terms and materials that may provide a general working knowledge that can prove useful during real estate transactions.

Flooring Products

Vinyl – Probably the most economical choice of the common flooring types, this product is available in the widest assortment of colors and designs of any flooring choice. Modern vinyl flooring has advanced to replicate more expensive wood, tile, and stone choices in both appearance and texture. It is relatively comfortable underfoot and with improved backing technology recently the durability has improved as well. Its construction is composed of a wear layer, gel coat, and a felt backing bottom layer. Overall it is a pretty resilient material choice but can rip, tear, crack, or stain. This product is manufactured in both sheets and tiles. As home prices increase this material will be found much less frequently because it isn't seen as a desired, higher end material today by many.

Laminate – Laminate flooring is constructed with several different layers of various materials fused together to form planks or tiles. The transparent top layer, or wear layer, protects the floor from scratches, stains, and scuffs and when used with embossing technology can also provide a textured feel. Just below the wear layer is a photographic layer which is a digital representation of real hardwood, tile, natural stone, or other material. Increased technology allows for improved photographic clarity and when combined with the textured top layer allows for a nearly authentic appearance. The next layer is an inner core made of fiberboard and finally the bottom layer is composed of a backing material. Today's improvements in the manufacturing can make laminate flooring difficult to distinguish from the real thing. Another potential advantage with laminate flooring is the reduced upkeep of grout and general maintenance involved with either a stone, wood or tile floor.

Ceramic Tile – A very popular flooring material, ceramic tile overall is very durable and offers a wide variety of colors and patterns. Its construction is made up from a mixture of clays and other natural materials which are fired in a kiln. Most ceramic tiles will have a white or red underbody appearance and the top layer only will be glazed to achieve the desired design and coloration (glazing can be done in a matte or gloss finish). Therefore, should any chipping occur it may be noticeable because the color underneath the glazed layer will likely not match. Different ceramic tiles can have different wear ratings, but most ceramic floor tiles will be very hardy and resistant to scratches. Potential problems can include chipping and cracking, and maintenance of ceramic tiles involves some grout cleaning, sealing, or filling typically. Ceramic tiles are available in a wide variety of sizes (with larger tiles typically

more expensive), colors, and styles. The relative affordability of ceramic tile for its high durability and the capability of mixing and matching tile colors, layouts and designs makes this one of the most widely used and sought after flooring choices.

Porcelain Tile – Porcelain tiles share many of the same attributes of ceramic tile but do vary in a few key areas leading to its commonly higher price. Constructed of fine porcelain clays this material is fired at a much higher temperature than a ceramic product. This results in a product that is more dense, much harder, and less porous making it much more resistant to any staining and moisture absorption. Because of these properties most porcelain tile is suitable for both indoor and outdoor applications. Unglazed porcelain tile is homogenous throughout its body coloration so scratches or dings are less noticeable. A porcelain tile with a glazed top layer may or may not have this same advantage though. Many higher end porcelain tiles replicate the appearance of natural stone and even can be found with similar variations amongst a color grouping and style. This makes its use appealing over natural stone in some instances because of its similar appearance, typically lower cost, and increased durability due to a lower likelihood of scratching or cracking while also requiring less maintenance.

Engineered Wood – Utilizing a thin layer of real solid wood layer, engineered wood gives an identical appearance for less cost than solid wood floors. Most engineered wood will be comprised of three or five different plies of wood facing in opposite directions. This construction actually provides some additional advantages over solid wood by counteracting the wood's natural tendency to expand and contract with humidity and temperature. The top layer of wood can be derived through three different methods (Rotary Peeled Veneers, Sliced, Sawn Face) which impact the material's cost, structure, and visual appeal. Because the top layer is real solid wood scratches and scuffs can be buffed out but only a limited number of times.

Solid Wood – Classic in its appearance solid hardwood floors are nearly always a sought after feature in homes today. Manufactured from real wood this material is one of the more expensive options, but certainly provides substantial visual appeal. Available in a variety of wood species and stains it is a very hardy product that can last a lifetime. This material is prone to scratches and scuffs but has the ability to be sanded and buffed to regain its original appearance.

Travertine – Travertine is a natural stone product which is highly sought after for building uses, primarily that of flooring. It has unique characteristics of having pitted holes or troughs within its surface which can either be left unfilled or filled depending upon specification. The surface can further be found in either honed or left natural which will vary the finished appearance. Because the vast majority of this product is imported it does come at a relatively high cost and due to its soft nature does require ongoing maintenance. For an antiqued look this material certainly delivers on visual appeal. Natural variation between tiles is one of the more common characteristics of travertine and lends to its unique appeal.

Slate – Not as commonly seen throughout residential construction but slate is a natural stone product with a pleasing visual appeal. Typically found in darker shades it does have low absorption rate and is an excellent insulator.

Marble – A natural stone which has seen relatively wide use in high end home construction, marble does have a striking visual appeal. Often found in a polished state it has a very elegant, classic look. It has many uses throughout home construction but comes at a relatively high cost.

Carpet – Carpets are composed of an upper layer or pile attached to a backing material. One of the primary differences between different types of carpets is the fiber/yarn used in its production. Some of the different materials commonly used are nylon, polyester, wool or wool-blend, and polypropylene. Each of these materials can have different characteristics, even within material type depending upon price, which lead to different wear, stain resistance, and comfort. Some of the terms which you can investigate are density, face weight, and pile height. Carpet also has different construction types including woven, knotted, and tufted. Carpet is still widely used and accepted in residences because of its warmth, softness, and economical benefits.

Carpet Pad – An essential component of every carpet is its underlying pad. Higher grade carpet pads can add to a life of the carpet by reducing wear on the carpet through less pressure being applied directly to the yarn. Carpet pads also are manufactured in a variety of materials such as felt, foam, rubber, and urethane which each have specific characteristics. Selecting a pad with appropriate thickness for the area and its density will ensure longer carpet life and provide a more comfortable flooring to walk on.

Kitchen Countertop Products

Laminate (Formica) – Widely used throughout residences due to its low cost, laminate countertops have the advantages of being fairly durable and non-porous. Scratches and chips on a laminate countertop though are almost impossible to repair cleanly and many find the appearance to be less stylish than more expensive products such as granite or solid surface counters.

Solid Surface (Corian) – Solid surface countertops, of which Corian is probably the most widely known, essentially are molded products made of polyester, acrylic or other resins. The key advantage to these surfaces is that they are non-porous and therefore resistant to stains and food-borne bacteria. Many people also like the capability to mold sinks into the surface as well creating a one-piece appearance. Solid surface products are quite durable but can be prone to scratches and even cracking if hot pans come into contact with them. Many times scratches are imperfections can be filled or buffed. Available in a wide variety of colors many solid surface products are manufactured to resemble the appearance of natural stone.

Engineered Stone (Quartz) – Engineered stone is most commonly referred to as quartz because it typically is comprised of roughly 93% natural stone particles, which are nearly always quartz, and the remaining 7% are resins, glues, and color. These products provide a very similar appearance to many granite countertops but with the added benefit of being non-porous. This means they are less likely to stain and won't require resealing that a natural stone like granite will. Quartz is also one of the hardest surfaces around so they are nearly impervious to scratches. Its expense is nearly equal that of the more popular granite and only has the disadvantages of possibly being seen as less stylish and unique, plus not the most eco-friendly countertop with the resins used in the manufacturing. Popular name brands on the market are Silestone, CaesarStone, Zodiaq, and Cambria.

Granite – A natural stone product retrieved from quarries, granite has undoubtedly become the most popular countertop in today's market. Prices are still relatively expensive compared to other materials but have dropped somewhat in recent years leading to its wide usage. Granite is appealing due to its durability and appearance. Because it is a natural stone product it is porous and needs to be resealed occasionally. It's available in a variety of colors, thicknesses and can be finished with multiple edge types. The pricing structure of granite typically will get more expensive for thicker slabs, more unique pieces with less uniformity of color and design (described as movement or character), and for more intricate edge types. Of note is that very often granite countertops will have a second piece laminated to the edge which gives the appearance of a thicker product without the extra cost. Granite also is available in tiles, but the more sought after and expensive products will be the full slabs.

Tile – One of the more economical choices for countertops is ceramic tile. Current trends don't find this product used too often although it is nearly impervious to heat which few of the other counter choices on the market can claim. Tiles can chip more easily than other surfaces though and their biggest perceived drawback is keeping the grout joints clean. This maintenance intensive task will deter people from using its application on kitchen countertops.

Undermount Sinks – An undermount sink sits below the surface of the countertop and requires additional support underneath the counter's surface to sustain the weight of the sink itself. This factor along with having to finish the inside edge of the countertop chosen adds cost during installation. With more expensive countertop choices like granite or quartz this is a very sought after feature because of the visual appeal and it eases cleaning the countertops by wiping debris directly into the sink without impediment.

Bathroom Products

Laminate – A popular choice for bathroom countertops because of its cost and durability in that environment. The biggest thing of note in a bathroom area would be to remove water from edges in particular quickly to avoid any damage to the resins and glues which bind the product together. Being only moderately heat resistant it is also advisable to be cautious with curling irons and the similar products. See the above description of laminate countertops as kitchen countertops for additional information.

Cultured Marble/Granite – A cast polymer product derived from resins which are poured into a mold to form countertops, tubs, and shower surrounds/pans. This product adds some style to bathrooms and is mold and mildew resistant making it a good choice for bathroom areas at moderate prices. Cultured marble products are very easy to clean and can be made with integral sink bowls as well. While typically white based they are available in an array of colors and most frequently show a colored marbling or veins throughout the product which are unique to each piece. Their use is limited to bathroom areas in most applications because they can be prone to scratching and scuffs.

Tile – Similar to the description of tile kitchen countertops this product is widely used for bathroom countertops and shower surrounds because of its low cost while also providing a variety of appearance options. Again the substantial downside is cleaning the grout lines between the tiles themselves.

Fiberglass/Acrylic – There are a number of fiberglass or acrylic components from tubs to shower pans and walls that will be commonly found throughout bathrooms. Many of these products are relatively similar in that they provide economical solutions with ease of maintenance in cleaning. These products can be susceptible to scratches but also are commonly colorfast throughout so are less noticeable and resistant to most major damage when properly installed.

Insulation

R Value – The R Value listed for an insulation product or segment of a house (typically wall or ceiling) is a measure of its thermal resistance or that product's heat loss retardation under specified test conditions. This value corresponds with the insulation's effectiveness, with a higher number representing a more efficient product that will in turn limit heat transfer when placed in a wall or ceiling between the interior of the house and the outside environment. Generally the higher the R Value the better in order to help reduce heating and cooling costs. However, typically space limitations in walls and ceilings limit the total volume of a product which can be installed. An R Value's effectiveness is a linear relationship in theory, so double the thickness of insulation will provide twice the R Value, but in practice you will start to see diminishing results, particularly in relation to reduced heating and cooling costs. Proper installation is also a key factor to ensure full benefit of a given R Value.

Also note that many homes may list an approximate R Value for the entire wall component which includes not only the insulation itself but other products within that wall structure such as drywall, lath, or stucco. R Values are a relatively complex issue when thoroughly investigated and comprises three heat transfer modes of radiation, conduction, and convection. If detailed information is sought then further investigation is definitely recommended.

Batted Insulation – Probably the most widely used form of insulation within residential construction in the modern area is fiberglass batted insulation. Fiberglass batts are a pre-cut material which is nonflammable (facing itself may be or simply fire resistant, if present) and largely made of molten glass. Available in different thicknesses and R Values this batted insulation requires proper installation to achieve maximum effectiveness. Proper installation should have the material fitted snugly against the framing material to eliminate gaps without being compressed which will reduce its effectiveness. Use of a proper vapor barrier is also required to ensure that batts perform optimally.

Loose-fill Insulation(Blown In) – Commonly composed of a cellulose material (often up to 80% recycled newspaper) this product can be blown into attic spaces or wall cavities and is especially useful in hard to reach spaces. This type of insulation may be applied either dry or through wet-spray applications and will better seal cavities when properly installed than batts. Loose-fill insulation is prone to settling over time which can reduce the effectiveness from the initial installation, particularly with dry-spray.

Spray Polyurethane Foam Insulation – Generally superior to loose-fill it in terms of its ability to seal penetrations and gaps, providing an acoustical barrier, and also strengthening structural stability this type of spray foam insulation comes at a high cost and therefore isn't widely used. There are also some potential health concerns during flammable situations and also within the application process itself.

Radiant Barrier – A type of reflective insulation, radiant barriers reduce the radiation of heat to or from a surface material. Most of these products are foil based and substantially reduce radiant heat transfer by up to 97%. Many radiant barrier products are formed from two sides of material (at least one of which is commonly an aluminum foil which must be placed facing outwards) with a foam or plastic bubble material in between which provides some protection from convective heat transfer as well. These products are quite effective in warmer climates and have many other advantageous qualities such as: acts as a vapor barrier, takes up less space than bulk insulation, are non-toxic, will not mold or mildew, and will not change thermal performance over time. However the cost associated can be relatively higher than bulk insulation and because this type of insulation doesn't adequately address conductive, and to an extent convective, thermal heat transfer it must be used in addition to other insulation.

Energy Efficiency & Mechanical Systems

SEER Rating – SEER, or Seasonal Energy Efficiency Ratio, refers to the efficiency of an air conditioning unit with a higher value representing a more efficient unit. As of 2005 the United States has required residential structures to have a minimum SEER rating of 13. ENERGY STAR qualified central air conditioners must have a minimum SEER rating of 14. Locations with longer and hotter summer conditions will benefit most from a higher SEER rating, but increased SEER units do come at a higher cost. Today's minimum standard of SEER 13 is a relatively efficient unit and typically very cost effective, hence its wide usage.

Air Conditioning – In Arizona air conditioning units are typically a very important component of a house. Factors which will lower cooling costs are a unit's SEER rating, EER rating (peak efficiency), tonnage, and volume of area to be cooled. Typically for larger homes it is preferred to have dual zones to improve efficiency and lower energy costs as well.

Evaporative Coolers (Swamp Coolers) – These devices perform a cooling function differently than traditional air conditioning by using the simple evaporation of water. The most analogous example of natural evaporative cooling is the manner in which human bodies use perspiration to cool down. Evaporative coolers are most widely used in areas like Tucson with hot temperatures and low humidity. More prevalent in older homes because of its relative low energy cost and installation expense it does require an abundant water source.

Dual Pane Windows – One of the biggest improvements in modern construction materials has been the advent of dual pane windows in place of single pane. Glass is a good conductor of heat and adding a second layer of glass with an air space in between provides substantial energy savings by not allowing as much transfer of heat between the two panes. This concept is similar to that of a thermos bottle or types of double walled coffee cups/mugs which provide this same sort of insulation. Some windows can even be found with triple or quadruple panes or slightly more common is to use an inert gas like argon between the panes which provides more insulation than air itself.

Low E Glass – Shorthand for low emissivity, Low E glass will help reflect radiant infrared (heat) and ultraviolet (UV) from the windows. Modern Low E glass windows can utilize various construction

methods and can be designed for specific regions and desired functions, but typically utilize a microscopically thin layer of metallic oxide bonded to the glass. Essentially the goal of each is to have a higher reflective value which will keep radiant heat from entering or leaving a house while allow visible light to pass.

Air Transfer Grilles – Commonplace in modern homes, air transfer grilles (also called jump(er) ducts or crossover ducts) are grilles located in the ceiling of a bedroom that lead to a grille in the ceiling of an adjoining hallway/room. These ducts help balance pressure and temperature throughout the house, enabling air to circulate more easily, even when interior doors are closed. Each room in the house likely has a supply air register feeding air into the room, but without air transfer grilles there is no method of circulating air back out of the room without creating imbalances.

Electrical & Plumbing Systems

GFCI (GFI) Outlets – A ground fault current interrupter (GFCI) or ground fault interrupter (GFI) receptacle is a type of receptacle that disconnects the electrical circuit upon detecting current leakage. Typically these devices will be found in wet locations throughout kitchens and bathrooms and are mandated by building codes. At least one receptacle in the circuit will be a GFCI protected outlet and provide coverage for those downstream outlets in the circuit as well. Notable for their test buttons and reset switches these GFCI outlets are readily visible. These devices are primarily a safety feature in place to reduce the likelihood of electrical shocks (although not all kinds of shocks can be eliminated with these devices) and work complementary with over-current protection. An overloaded circuit may trip this switch thereby cutting off all power to the circuit and necessitating the reset switch to be pressed to regain electrical power.

Arc Fault Breakers – These specific circuit breakers are designed to prevent fires by disconnecting power to an outlet when an unintended arc is detected. Arc faults occur commonly when items such as a lamp or appliance cord has a broken conductor from overuse. These more sensitive breakers are able to detect such non-intended arc faults sooner, which is one of the leading causes of household fires. These breakers can be more readily identified because of their test buttons and provide both arc fault and over-current protection.

Soft Water Systems – Water softeners lower the mineral content of water (particular calcium and magnesium) by replacing those mineral ions with sodium ions. Each water source will have a different value of “hardness” measured in grains per gallon (GPG) or parts per million (PPM) of minerals. The primary detriment of hard water is the scale which is produced. When heated, the dissolved hard water minerals re-crystallize forming this scale which can negatively impact household appliances and water systems. This scale can clog plumbing, reducing water flow and potentially damaging appliances such as dishwashers and coffee makers. Soft water also has some benefits in reducing water spotting and allows soaps and detergents to be more effective during bathing and cloth washing.

Reverse Osmosis – Reverse osmosis is a filtration method primarily used to purify drinking water. It helps eliminate salts and other minerals from the water source to provide higher quality water. One of

the disadvantages of most reverse osmosis systems is they typically use a lot of water. This lack of efficiency means a considerable amount of water is used in order to produce the filtered result.

Half Hot (Switched Outlet) – Many homes will have one or more half hot or switched outlets, typically found in bedroom and great room areas. This term refers to the fact that half of the receptacle is always “hot” or receiving electricity, while the other half (often the top) of the receptacle has the electricity to it controlled by a wall switch. Effectively this allows homeowners to plug in a lamp or other device and leave it powered on at the unit all the time and control its operation by toggling a wall switch.

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