

Vinyl Glossary

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Alkali

A substance having basic properties with pH greater than 7. This is the opposite of an acid which has a pH less than 7.

These are normally calcium, sodium or potassium compounds which are soluble in water. These compounds can come from either the soil or more generally the concrete. Water dissolves these compounds and acts as a transportation medium and brings these alkali compounds in contact with the pigments of the ink: this can cause them to lose or change their color. This is a non-reversible color change.

Antioxidant

These are chemicals which protect rubber products from attack by oxygen. Without antioxidants rubber products suffer from premature failure from oxidation which causes extremes of brittleness, cracking, and in some cases stickiness.

When a rubber product containing an antioxidant comes in contact with a vinyl floor covering for as little as a few hours, then the flooring is exposed to light, discoloration can occur. This discoloration is normally a yellowish brown color and is the exact shape of the object which came in contact with the vinyl floor covering. The discoloration can extend through the entire wear layer and even into the foam; when this occurs the stain is permanent. It is possible for a considerable amount of foot traffic with rubber sole shoes to cause a yellowish brown discoloration in the traffic paths. This is caused by the antioxidants being "walked off" the sole of the shoe.

Blisters (See Wearlayer Surface Bubbles)

Blisters appear as thin skinned bubbles in the foam or wear layer, usually the result of too much heat or too little gel.

Blushing

Discoloration of the wear layer due to excessive moisture either from above or below the product. The wear layer will turn "white" or "milky" in appearance. After removal of the moisture the wear layer will return to its normal appearance.



Compression

The flattening of the floor due to excessive pressure in that area, such as pressure exerted by wrapping the packed roll too tight. Compression can also be caused by an object such as a shipping chock. The rolls lay against the shipping chock which is there to keep the roll from moving, could cause an indent or pressure mark in the packed roll.

Crocking

This is similar to plasticizer exudation except it is a term used to describe what happens with pigments or dyes that come to the surface of fibers where they can easily be rubbed off the surface or tracked to other surfaces. The dye is normally walked off the carpet and onto the vinyl floor covering. This normally occurs when the dye in the carpet is not properly fixed to the fiber and is a fault of the carpet manufacturer. Generally a red carpet will cause a pink discoloration of the vinyl floor.

A quick method to determine if the carpet is the cause of the discoloration would be to rub the carpet with a white piece of cloth, for example a handkerchief, in a non-traffic area 25 - 30 times. If the handkerchief turns pink or red, you can then feel quite confident the carpet is the source of discoloration. The discoloration on the vinyl floor covering would be more evident in the heavier traffic areas.

Curing

Curing is the process which produces a dry clear wear layer when the wet liquid wear layer is exposed to the heat in the oven.

Curling

The trimmed or untrimmed factory edge bending up or down (positive or negative direction.)

Cuts & Gouges

Cuts & gouges can be small openings in the wear layer caused by dropping sharp objects such as knives or can on the product. It can also be large cuts or tears which sometimes go through the wear layer, foam, and into the felt. This type of problem could be caused by moving heavy objects across the rooms such as refrigerators.

Cuttings Classification

Pieces shorter than minimum length for Regulars, Seconds, Trails and Remnants will be packed in one row in accordance with the limitations in the current Packaging Instructions for any given product. The quality standard of examination shall not be lower than that for any of the above classifications.



Design Match Run-Out (Pattern Run Out)

When two sheets of flooring are positioned for seaming and the design points will not align exactly; one sheet appears to have stretched. This is an inherent condition which occurs with all sheet vinyl floor coverings, and is caused from being packaged in roll form. The design units on a sheet nearest the core will be slightly longer due to having been wound in a smaller diameter. The standard method of minimizing or eliminating the design run-out is to reverse roll the sheet running long.

Discoloration

Any change in wear layer, print or foam from its original color.

Causes of Discoloration

1. Excessive heat or light
2. Crocking of a carpet
3. Tracking onto floor: asphalt, paint pigment from porch steps, painted cellar floor, etc.
4. Antioxidants from rubber sole shoes, adhesives, rubber products, etc.
5. Moisture causing mildew and/or discoloration due to alkali attack
6. Spills of any material containing a food dye, spills of anything with a strong color that is soluble in plasticizers used in vinyl floors.

Drop (Drop Sheets)

A drop is simply another way of saying a sheet of floor covering. For instance: "This installation will require three drops (individual sheets or pieces) of floor covering".

Embossing

This refers to that portion of the pattern that is depressed and thinner in overall gauge than the surrounding areas. The reduction in gauge is only in the foamed portion of the product and not in the wear layer.



Embossing is normally referred to in reference to mortar lines. Texture is a type of embossing that is normally referred to as an overall type of embossing. For example, Profile Amerly would have embossed mortar lines but no texture, I.e. no overall embossing, whereas Highlight Town and Country has embossed mortar lines plus an all over texture. Texture usually refers to embossing in an all over design whereas embossing normally refers to mortar lines.

Felt Defect

A hole or tear in the felt itself. A hole in the felt normally has foam curling around the edges since the hole was there during gelling.

Felt Impression Transfer

This refers to the distinctive pattern on the back side of the felt being transferred to the wear layer side of the product when in the packed roll. This impression normally disappears after the product has been unrolled and the felt is no longer in contact with the wear layer. The speed with which this felt transfer disappears is dependent upon time and temperature. The higher the temperature, the shorter the time for this impression to dissipate.

Foam Coating Defects

Any defect resulting from the gel or foam coating operation. Example of a gel defect would be a gel streak. Example of a foam related defect would be a foam blister or poor cell structure within the foam.

Foreign Matter

Any material which does not belong in the make-up of the floor covering. Example, dirt, soot, insects, etc.

Gas Bubbles

Small pockets of vapor (normally 2" to 3" in diameter) which form between the floor covering and sub floor shortly after the adhesive has been applied and the flooring rolled. This frequently occurs with non-porous sub-floors such as old resilient flooring or smooth concrete. Gas bubbles generally dissipate and flatten overnight.



Gel

That portion of the product that eventually becomes the foam layer in the finished product. It is the layer upon which the pattern is printed.

Gel Streak

A gel streak is an area where the gel has been wiped from the felt. This area runs in machine direction and normally is quite thin. When the gelled foamable plastisol (which becomes the foam in the finished product) is printed, this low area cannot be printed by the print cylinder, thus leaving a white line of felt showing through. When the material passes through the oven and the blowing process takes place, this gel streak becomes deeper and because the foam expands around it. The gel streak appears as a white line through the printed product.

Heat Degradation (Heat Stability) See Light Degradation

A change in the physical appearance of the flooring product through exposure to excessive heat. This normally results in a yellowing of the wear layer and if continuously subjected to a source of excessive heat, the product can turn black and become hard and brittle.

Hydrostatic Pressure

The flow of water due either to a source that is at a higher elevation or that is due to capillary action. An example of capillary action is the flow of water from the roots of a tree to the leaves and branches. Concrete has minute pores that function as capillaries.

Indentation

An impression formed by an object pressing down onto the floor covering for example, a table or chair leg. Most of this impression will normally recover within a few hours or days depending upon the force exerted on the floor, temperature of room, etc.

Light Degradation (Light Stability) See Heat Degradation

This is essentially the same as heat stability except the change in the product is caused by excessive exposure to light. Generally bleaching lightening of the color occurs first, then a change to yellow and eventually the product will turn black if exposure continues.



Machine Direction

In a 75 yard roll of 6' Spring the long dimension, I.e. the 75 yard direction, is the machine direction. The 6' dimension or width of the product is called across machine direction or AMD.

Mildew or Fungus Growth

The growth of fungus normally occurring in the foamed layer of flooring products and normally is gray or black in color and has the appearance of small black specks of pepper. This is normally caused by exposure to excessive moisture either coming from or through a concrete slab or from a leaking appliance.

Chromabond products are protected against mildew growth by the addition of a mildewcide to the product.

Pinholes

Pinholes are normally associated with urethane on high gloss products. The pinhole is normally caused by air trapped in the vinyl wear layer below the urethane bursting and causing a "pinhole", or bubbles in the urethane coat that likewise burst when exposed to the heat of the oven and cause a very small hole. Small bubbles, which do not burst in the oven, can later wear through when installed on a consumer's floor leaving a small "pinhole".

Pitting

Pitting is normally associated with inlaid or rotary products. Pitting is the result of poor knot between the flake stock and the clear matrix. The wear layer top coat applied over these poorly knotted areas entraps air. When the material passes thorough the heated oven, the air expands and causes a bubble which bursts and leaves a pit. This pit normally extends partially or all the way through the top coat and chip layer.

Plasticizer

An oily con-volatile liquid incorporated in a plastic it increase its softness, flexibility, and workability. Without plasticizers sheet floor covering would be extremely stiff and inflexible like rigid vinyl siding. As the percentage of plasticizer is increased the flexibility of the product increases. Rigid vinyl siding, which is very stiff and inflexible, has a very low level of plasticizers, whereas sheet goods as produced by Congoleum has a relatively high level of plasticizers. The function of plasticizers is to increase the flexibility and install ability of floor covering products. Without plasticizers sheet vinyl could not be rolled up nor could they be installed by normal installation techniques because they would be too stiff and brittle.



Plasticizer Migration

The exudation or movement of plasticizer from the interior of a plastic article to the surface. For example, plasticizer from the wear layer coming to the surface of the wear layer. This is an extremely rare phenomenon in floor covering that the plasticizers would move to the surface of the product.

Plasticizers can migrate from one level or layer in a floor product to another. Plasticizers tend to migrate from areas of high concentration to areas of low concentration. For example, if there was a higher percentage of plasticizer in the foam layer of flooring product than the wear layer, then the plasticizers could migrate from the foam layer into the wear layer.

Policy Adjustment

A consumer complaint that would normally be considered unwarranted but because of special circumstances the District Manager decides to warrant the complaint. This is a discretionary warranty of unwarranted complaints.

Print Defect

Any defect resulting from the printing process. Example, misregister, ink streaks, ink splatter, or cylinder damage causing defective pattern image.

Process Wrinkles

Wrinkles in the flooring which occurred during the manufacturing of the product. These wrinkles can be caused by the winder which winds the material into a jumbo roll, uneven sheet tension, uneven winding pressures, etc.

Regulars

This is the classification used to describe our first quality material. Material in this classification meets the existing Finished Material Specifications including accurately registered printing and complete surface covering with vinyl and/or urethane wear layer. The wear surface must be free of objectionable streaks and the surface texture must be uniform. Embossing depth and appearance shall be uniform in all directions. There shall be a satisfactory bond between all layers in the construction. Smoothness and decoration are to compare favorably with standard approved samples. The surface shall be substantially free of defects.



Remnants Classification

Pieces shorter than minimum length for Regulars and Seconds and meeting the specifications for these classifications shall be packed and Remnants. Both regular and off goods can be packed in the same roll.

Reverse Rolling (Back Rolling)

The flooring is rolled in a normal manner, but with the backing out. Reverse rolling is an aid to installation and produces these benefits: reduces or eliminates roll set; reduces or eliminates end curl; shrinks the sheet slightly, which is an aid to reducing or eliminating design match run-out.

Seconds Classification

Slight misprint or misregister, small areas of contamination or similar surface defects, wear layer and gel streaks or ink streaks are permitted in this classification if not excessive, however, fine ink streaks misregister and other continuous defects are permissible if not serious enough to warrant further downgrading to Trials classification. Occasional cut outs and tears on the edge of this sheet not exceeding a depth greater than 1" into the sheet are permissible. In all cases described above due consideration will be given to the quantity of Regular material in the sheet.

Sunburning (See Heat and Light Degradation)

This condition is normally associated with the flooring being exposed to excessive amounts of sunlight. Sunlight shining through a glass window or door unprotected by a U.V. screen or drapery will in time produce a dark discoloration within the wear layer. This condition normally takes considerable time to develop and manifests itself as small, dark spots which grow and multiply until they have grown together leaving a large dark area in the floor covering. This condition can be prevented through the use of the U.V. screen or curtains.

Trials Classification

Material classified in this category will permit major continuous and noncontiguous defects which prohibit classification as either Regulars or Seconds but do not seriously interfere with the serviceability or sale-ability of the good for the reduced price level of this product.



Under-layment Joint Telegraphing

An obvious distortion of the flooring (usually a ridge) directly over the joints in an underlayment sub floor. This can be caused by a number of reasons: expansion of underlayment panels; edge swelling of underlayment panels; uneven joints, etc. this is not a legitimate complaint against the floor covering.

Vinyl, Polyvinylchloride, PVC

Polyvinylchloride is made by polymerization of vinyl chloride with a peroxide catalyst. The pure polymer is hard, brittle and difficult to process but it becomes flexible when plasticizers are added. PVC compounds can be flexible or rigid according to the amount and type of plasticizer incorporated. A special class of PVC resins of fine particle size called dispersion grade resins can be dispersed in liquid plasticizers to form a plastisol.

At the proper fusion temperature the resin is completely dissolved in the plasticizer forming a homogeneous plastic mass which upon cooling is a flexible solid. Congoleum floor coverings are made with polyvinylchloride resins and are made using the plastisol method whereby the vinyl is incorporated in plasticizers and coated onto a carrier sheet, in most cases, a felt backing. The liquid plastisol can be coated to a very precise thickness which allow for excellent and uniform gauge control.

Wearlayer Coating Defect

Any defect resulting from the coating operation where the wear layer is applied to the product. Examples of this would be wear layer streaks, bubbles, blisters, pinholes, uneven application or lack of wear layer.

Wearlayer Delamination

The separation of the wear layer from the remainder of the product.

Wearlayer Streaks

A wear layer streak is an area where the wear layer has not been applied or has been wiped off the printed gel. This can be caused by a particle of foreign matter or dirt in the coater. There is either a total lack of wearlayer in this area or the wear layer is much thinner than surrounding areas. On rare occasions a white or opaque "streak" will be in the wear layer (this is caused by small bubbles of air).



Vinyl Glossary

Wearlayer Surface Bubbles (See Blisters)

W/L surface bubbles are normally caused by air in the wear layer. On an inlaid type product the air is trapped in the chip layer, expands due to the oven heat and causes a blister under the top coat which appears as a surface bubble.

Blisters are normally associated with the foam. This condition usually arises when an overblown or excess heat condition arises, causing the foam to expand excessively causing bubbles to join this forming a blister.



Resilient Terms

Above-grade Sub floors: Floors above ground level. Normally an air space of at least 18" between the ground and the sub floor with proper cross ventilation in both directions. Should be provided to help assure dryness.

Abrasion Resistance: Determined by one of several tests, this shows degree to which the floor withstands foot traffic and daily wear.

Alkaline Salts: Occurs in concrete sub floors where water carries diluted alkaline salts to surface. Can cause floor failure by destroying the adhesive's bond; can work its way through sheet goods, seams and tile joints.

Below-Grade: A floor which is located below ground level, usually a concrete slab. Presence of moisture is automatically assumed; should be properly tested to determine the moisture level. Proper floor and installation procedure must be selected.

Binder Bars: Made of metal, vinyl or rubber and used to finish off raw edges such as doorways or between two different types of floors.

Burred Edges: Most often caused by cutting seam with dull knife, leaving a jagged edge. Can be removed by aluminum foil and electric iron, scraping and sandpapering, rubbing with hammerhead or scrap material.

Capping: Procedure and material used for self caved tile and/or sheet goods installation. The cap strip, usually metal, but also can be vinyl or rubber, has a flange into which the top edge of the caved floor covering fits.

Chemical Resistance: The degree to which the floor covering resists stains and/or corrosive action of various household and industrial chemicals.

Cove Base: Made of vinyl, rubber and/or metal in a variety of heights and shapes for a wide piece of sheet goods and tile installations. Included with adhesive or self stick.

Cove Strip: Used for flash cove installation this is usually a 1/8" strip of muslin-backed wax. Installed at floor level so that floor covering can be curved up over it in forming the cove.

Coving: Also referred to as flash coving or self coving. Used usually with sheet goods although tile can also be coved. The floor covering is installed up the wall to the desired height and finished at the top with capping.

Cross Seam: A procedure used to join two ends of the floor covering together. A cross seam should not be used in an area where another cross-seam is used. Should attempt to use where they will be least objectionable.

Dimensional Stability: The ability of the floor covering to maintain its width and length after installation.

