

TILE AND PLANK ADHESIVES

A. TILE COMPOSITION/BACKING

The basic composition of most Congoleum tile, including the back, consists of vinyl resins, plasticizers and mineral fillers. All Congoleum tile can be installed on suspended wood floors and concrete subfloors on all grade levels.

1. DRY BACK

“Dry Back” is the terminology used to describe Congoleum tile which is generally installed by the professional installer. Adhesive is spread on the subfloor and the tile laid into the wet or pressure sensitive adhesive (depends on the product being installed).

2. ZipStik

Tile which has had the adhesive applied to the tile back is called “ZipStik”. Paper is applied to the back of each tile during the manufacturing process to keep them from sticking together in the carton. The paper is then pulled from each tile as it is installed. Tile with ZipStik is generally considered to be a do-it-yourself floor.

B. GENERAL ADHESIVE INFORMATION

Use of the recommended adhesive applied with a properly notched adhesive trowel is crucial for a successful, trouble-free tile installation. Excessive amounts of adhesive will result in exudation (oozing up) of adhesive between tile in service. Insufficient coverage (normally caused by worn notches on adhesive trowels) will prevent proper adhesion or bond to the tile. When trowel notches become worn (occurs more frequently on concrete subfloors), they should be renotched to the recommended size or replaced.

Tile adhesives are not interchangeable between tile products. Three adhesives are required to install Congoleum floor tile. AD72 is a wet-set adhesive, (tile must be laid into adhesive before it sets up, generally within 20 minutes). The other two adhesives (AD42 and DS100) must be allowed to dry to a tacky state before the tile is laid into the adhesive (30 to 60 minutes of drying time required depending on atmospheric conditions). The installer then has up to 6 hours with AD42, or 12 hours with DS100, to lay the tile into the adhesive.

C. CONGOLEUM TILE ADHESIVES

See chart below for adhesive recommendations for installing Congoleum tile products.

Adhesive Recommendations for Installing Congoleum Tile Products

Adhesive	AD42	DS100	AD72
Use	Vinyl Composition Tile <ul style="list-style-type: none"> • Selections • Alternatives • CX Series Dry Back D-I-Y Tile <ul style="list-style-type: none"> • Intrigue • Special Effects • Choices • Majestic 	DuraStone DuraCeramic DuraCeramic Options Endurance Plank**	Forum Plank*
Advantages	Moisture and alkali-resistant, develops high initial tack. Solvent free, low odor.	Moisture and alkali-resistant, high initial tack. Solvent free, low odor.	Moisture and alkali-resistant, hard setting to resist thermal expansion and contraction. Solvent free, low odor.
Type	Pressure sensitive/Water based/Latex	Pressure sensitive/Water based/Acrylic	Wet-set/Water based/Acrylic
Subfloor	Dry concrete on all grade levels, suspended wood floors, and over approved resilient floor covering.	Dry concrete on all grade levels, suspended wood floors, and over approved resilient floor covering.	Dry concrete on all grade levels, suspended wood floors. Not recommended for use over old resilient flooring or other nonporous surfaces.
Trowel	1/16" wide x 1/32" deep x 1/32" apart.	1/16" wide x 1/32" deep x 1/32" apart.	1/16" wide x 1/16" deep x 1/16" apart.
Working Time	6 hours Dry to tack - 1 hour	12 hours Dry to tack - 1 hour	20 minutes
Spread Rate	250 to 300 sq. ft./gallon	200 to 250 sq. ft./gallon	125 to 135 sq. ft./gallon
Freeze/Thaw Stable	Yes	Yes	Protect from freezing
Flammability	Nonflammable	Nonflammable	Nonflammable
Tracer Colors	Red/Green	Dark Red	Orange/Blue
Cleanup	Wet: Soap and Water Dry: Clean cloth dampened with mineral spirits.	Wet: Soap and Water Dry: Clean cloth dampened with mineral spirits.	Wet: Soap and Water Dry: Clean cloth dampened with mineral spirits.
Shelf Life	One year if unopened.	One year if unopened.	One year if unopened.
Sizes	1 gal. (4/ctn.), 4 gal.	1 qt. (12/ctn.), 1 gal. (4/ctn.), 4 gal.	1 gal. (4/ctn.), 4 gal.

WARNING: AD42 Adhesive: eye and skin irritant; DS100 Adhesive: Potential eye and skin irritant; AD72 Adhesive: eye irritant. Mineral spirits is a flammable material. Read and follow precautionary instructions on labels.

* Use DS100 with Forum Plank only when installing over approved resilient flooring.

** Use AD72 with Endurance Plank only where temperature fluctuations exist.

- When using AD42 or DS100 Adhesive, a thin prime coat of the same adhesive, diluted 1:1 with water, may be required over porous concrete and some patching compounds. The prime coat should be applied with a smooth wall paint roller or flat trowel and allowed to dry before continuing. To test the surface, apply adhesive with a notched trowel to areas of the subfloor with and without a prime coat. If equal adhesive tack develops in both areas when dry, no prime coat is required.
 - Allow AD42 and DS100 to dry before starting to install tile. AD42 turns from an opaque milky color when applied, to translucent amber when tacky dry. DS100 turns from light blue to clear. Press a finger onto the adhesive. If it is firm and does not transfer to your finger, the adhesive is dry and ready for tile installation. Tiles set into the adhesive before it is dry may result in tile shifting and gapping.
 - If AD42 or DS100 adhesive is being used to install the floor tile, complete one-half of the room at a time. Spread the adhesive on the second one-half of the floor so it can dry while the last row of tiles is being cut and fit to the wall. Move all supplies and tile onto the installed tile so they are accessible.
 - AD72 can only be used on porous surfaces such as wood or concrete subfloors to install Congoleum Plank. This adhesive will not dry when applied over old resilient or other non-porous floor coverings. Allow the adhesive to tack up for about 5 minutes after applying with a 1/16" x 1/16" x 1/16" (1.6mm x 1.6mm x 1.6mm) semicircular notched trowel. **NOTE: When installing Forum Plank over old resilient or other nonporous floor coverings, DS100 Adhesive may be used. When using DS100 Adhesive, shrinkage of the Forum Plank may occur if the room temperature fluctuates below 70°F (21°C) or above 75°F (24°C). Where fluctuations are expected to occur, Congoleum recommends the old floor be removed (following recommended procedures) or covered with an approved underlayment panel (wood constructed subfloors) and the plank installed with AD72 Adhesive.**
 - When using AD72 wet-set adhesive, work in straight rows. Install cut pieces as you continue. Spread adhesive in an area no larger than can be covered in 20 minutes. The adhesive will become slightly tacky. Periodically check to see that at least 95% of the adhesive pattern has transferred to the back of the tile. Position each tile lightly against previously laid tile with corners precisely aligned. Press firmly into the adhesive. Avoid sliding tile into position to prevent adhesive from squeezing up between tiles. If the adhesive starts to set-up or skin-over, scrape it off the subfloor and reapply fresh adhesive. Tiles set into AD72, after the adhesive has "set-up" may exhibit a high/low appearance since trowel ridges may not be flattened during the rolling process.
 - All tile (including ZipStik) must be rolled with a 100-pound (45 kilogram), or heavier, floor covering roller after installation. Roll diagonally in both directions with the floor covering roller. Do this as each section is completed. This is particularly important when installing Congoleum tile or plank in wet-set adhesive. Reroll the entire floor after one to two hours. Use a steel hand roller to level any raised corners or edges.
 - Any adhesive smears on the face of the tile can be removed with mineral spirits or lighter fluid.
- CAUTION**
These solvents are flammable; follow cautionary information on labels.
- Since ZipStik tiles have adhesive preapplied, the use of additional adhesive is neither advised or recommended. If a primer is required when covering a porous surface, AD42 or DS100 may be diluted 1:1 with water and applied with a smooth wall paint roller or flat trowel and allowed to dry. The use of additional adhesive may lead to indentation problems.
- CAUTION**
Do not stand or walk on release paper or a tile with release paper on the back. This paper is extremely slippery. Immediately place all removed release paper in a trash receptacle.