

1

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METHOD OF PRODUCING A DECORATIVE COATING ON A SURFACE

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8 Claims

ABSTRACT OF THE DISCLOSURE

A method of producing a decorative coating on a surface wherein a first drying vehicle is applied to a surface, decorative chips are distributed over the surface, and another drying vehicle is applied to the surface while the first drying vehicle is still wet, the application of the second drying vehicle tending to redistribute the chips which were originally distributed on top of other chips, resulting in their more even distribution.

This invention relates to a method of producing a decorative coating on a surface, and more particularly, to a method of producing a decorative coating on a surface wherein decorative chips are applied to a drying vehicle, with another drying vehicle applied while the first drying vehicle is still wet to redistribute and encapsulate the chips.

Background of the invention

Decorative coatings are advantageously applied to various surfaces, including floors, walls, furniture, and articles of jewelry, and numerous methods of applying these coatings are known.

In some cases, the coating is in the form of a covering which is fabricated before its application to a surface such as a floor (for example, Almy et al., 3,170,808 and Biskup, 3,121,642). But an elaborate machine is generally needed to carry out the fabrication, and thus the method itself is not adaptable for use by an individual who wishes to apply a decorative coating to a surface in a simple and inexpensive manner.

Another known method involves the application of a base coating to a surface, and the subsequent spraying of small cellulose particles over the still-wet coating (Ericks, 2,768,093). But since the particles protrude above the base coating, this decorative coating does not have the smooth surface necessary for many purposes, nor does it have the necessary wearing qualities to be used on, for example, a floor.

Another known method requires the coating to be subjected to a violent jerking or pushing, or to be tilted (Iverson et al., 3,219,735), all of which are obviously impossible if the surface to be coated is a floor or wall.

It is known also to distribute chips over a wet coating, to allow the coating to dry, and to scrape the resulting chip protrusions off with abrasive means to smooth the surface. But with the use of this method the chips are often unoriented and unevenly distributed over the surface, thus resulting in a less attractive appearance.

It is an object of this invention to overcome the above problems by providing a simple and inexpensive method of producing an attractive decorative coating on a surface.

It is a further object of this invention to provide a method of producing a decorative coating which can be applied to a variety of surfaces, including floors and walls, and which insures that decorative chips used in the coating are reasonably evenly distributed over the surface, thereby contributing to the smoothness and attractiveness of the finished product.

2

Summary of the invention

Broadly stated, the method of producing a decorative coating on a surface comprises applying a first drying vehicle, then distributing decorative chips over the first drying vehicle while the vehicle is still wet and thereafter applying a second substantially clear drying vehicle while the first drying vehicle is still wet to redistribute the chips more evenly over the surface to encapsulate the chips. The drying vehicles are then allowed to dry.

Description of the preferred embodiments

The surface to be covered, which may be concrete, wood, tile, linoleum or asphalt or the like, is first cleaned by any well-known means. A sealing coat, which may advantageously be a blend of pigment, catalyst, and moisture-cured polyurethane, is then applied by brushing, rolling, or in any other well-known manner. This sealing coat may also, with advantage, be epoxy resin. The sealing coat is then allowed to dry.

A coating of clear moisture-cured polyurethane or like drying vehicle is then applied. This coating may also, with advantage, be clear polyester, epoxy, lacquer, shellac, or other synthetic. Substantially flat vinyl chips of one to two mils thickness are then distributed over the still-wet coating. These chips may be of various colors, if desired, and the sealing coat may be clear or one of the various colors of the chips, or any other color desired. This results in an attractive coating even if relatively few chips are distributed over the coating, allowing some of the sealing coat to show through, and results in a particularly smooth finish, since the pile-up of chips is quite unlikely.

A second coating of clear polyurethane or like drying vehicle, as mentioned above, is rolled or brushed on by means of a paint roller or paint brush while the first coating is still wet. This serves to pick up chips which are on top of other chips and redistribute them to other areas, and also urges the chips toward the surface to be coated and flattens them out and disposes their surfaces substantially parallel to the surface being coated. This contributes to a smooth coating finish. The coatings are then permitted to dry.

It may be desirable to distribute additional chips over the entire second coating and to then apply a third coating while the second coating is still wet, or to perhaps apply additional entire coatings without additional distribution of the chips. This may be particularly advantageous when coating a concrete floor, since additional layers of polyurethane or the like increase the resilience of the finish, resulting in a more restful floor to walk on. As many coatings can be applied, therefore, as is deemed advantageous.

Furthermore, certain drying vehicles form air bubbles within themselves as they dry, and these materials may be used to provide an even more resilient coating.

After these coatings are allowed to dry, the surface is inspected for uneven distribution of the chips, and additional polyurethane or like drying vehicle can be applied to those areas which have relatively few chips. More chips can be distributed on these areas, and, as above, another coat of polyurethane is applied to these areas by rolling or brushing while the most recently applied polyurethane in those areas is still wet.

After sufficient chips have been applied in the above manner and the coatings are allowed to dry, the entire resulting coating may be smoothed by sanding or the like, although this may be neither necessary nor desirable for certain surfaces (for example, an exterior patio).

Finally, one or more clear protective coating is applied to the entire surface and permitted to dry. This may be the same drying vehicle used before, or may

with advantage be acrylic lacquer or acrylic emulsion or a vehicle which is weather-resistant or non-yellowing.

This method can be used for the coating of walls, and toward that end, the chips may, with advantage, be blown against the wall. This method can, as pointed out above, be applied to an inside or outside surface, by selecting the proper coating vehicle.

It will be seen that the present invention discloses a simple and inexpensive method of producing a decorative coating on a surface. The coating can be applied by virtually anyone and requires no complex machinery or tools. Furthermore, the coating can be applied to virtually any surface, and the finished product is quite attractive and durable.

Obviously, the principle of the invention is applicable in a variety of ways, and we therefore do not desire to be limited by the embodiment described, but rather only by the scope of the following claims.

We claim:

1. A method of producing a decorative coating on a surface comprising:

- (a) applying a first dryable liquid binding agent on said surface;
- (b) distributing decorative flat chips over the first dryable binding agent while said agent is still wet;
- (c) rolling a second substantially clear dryable liquid binding agent over said first dryable binding agent while the latter dryable binding agent is still wet thereby redistributing the chips more evenly over the surface and encapsulating the chips; and
- (d) allowing the dryable binding agents to dry.

2. The method according to claim 1 wherein a substantially clear protecting coating compatible with the first and second dryable binding agents is applied over said second dryable binding agent after the dryable binding agents are allowed to dry.

3. The method according to claim 2 wherein a surface sealing coating compatible with the first and second dryable binding agents and substantially clear protective coating is applied before application of the first dryable binding agent.

4. The method according to claim 3 wherein the decorative chips are of various colors, and wherein the color of the surface sealing coating is one of the various colors of the chips.

5. The method according to claim 4 wherein the surface to be coated is cleaned before application of the sealing coating, and wherein the second substantially clear dryable binding agent is sanded after drying and before the substantially clear protective coating is applied.

6. A method of producing a decorative coating on a surface comprising:

- (a) a cleaning the surface to be coated;
- (b) applying a surface sealing coating to the cleaned surface;
- (c) applying a first clear dryable liquid binding agent over said sealing coating;
- (d) distributing substantially flat chips over the first dryable binding agent while said dryable binding agent is still wet;
- (e) rolling a second clear dryable liquid binding agent

while the first dryable binding agent is still wet thereby redistributing the chips more evenly over the surface to be coated and encapsulating the chips;

- (f) allowing the first and second clear dryable binding agents to dry;
- (g) applying a third clear dryable liquid binding agent to those areas with relatively few chips;
- (h) distributing additional substantially flat chips over the third clear dryable binding agent in those areas with relatively few chips, thereby insuring a substantially uniform distribution of chips over the surface to be decoratively coated;
- (i) applying a fourth clear dryable liquid binding agent to those areas where additional chips have been distributed while the third dryable binding agent is still wet;
- (j) allowing the third and fourth clear dryable binding agents to dry;
- (k) sanding the resulting surface; and
- (l) applying at least one clear protective coating, the surface sealing coating, first, second, third and fourth dryable binding agents and protective coating being compatible with each other, whereby a decorative coating is provided on the surface.

7. The method according to claim 6 wherein the surface sealing coating is a blend of pigment catalyst and moisture-curable polyurethane which is applied to the surface and allowed to dry before application of the first clear dryable binding agent.

8. The method according to claim 7 wherein the clear dryable binding agents and protective coating are moisture-curable polyurethane.

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