

Technical Note #1- De-lamination

De-lamination of coatings can occur between the coating system and the substrate.

Possible causes for de-lamination are:

1. Contamination
2. Inadequate surface preparation
3. Incompatibility

Contamination

Contamination can be on the floor surfaces or it can be introduced onto the substrate surfaces by sanding, application equipment or washing between coats.

Potential sources of contamination include

- Aerosol Sprays
- Spillages, especially cooking oils and food in the kitchen areas
- The use of incorrect cleaning and maintenance products.

Application of solvent-based floor finish can re-dissolve those extracted materials so that they sit on the surface of that floor finish layer. Very often, there are no or only minor signs of rejection. The second finished coat with it's surface characteristics will possibly then reduce adhesion.

Inadequate surface preparation

Polyurethane and Epoxy floor finishes dry to a highly inert film and they will not adhere to other coats, unless they are surface activated. Good sanding followed by vacuuming is essential in order to achieve a mechanical activation for proper bonding. The sanded surface should appear uniformly dull after sanding. The surface is not sufficiently activated if the screen or sandpaper caused only a few scratches on the floor. It is recommend that 120-150 grit be used.

Incompatibility

The use of mixed system can create a lot of problems. Evaluation of all systems used prior to application needs to be carried out. Especially the use of tints in clear coats

How to avoid de-lamination

Following is a list of things that, if considered, can help to eliminate or dramatically reduce the likelihood of de-lamination problems on

floors

- Wash epoxy and polyurethane floors with Fortis Floor Prep prior to sanding process, particularly in kitchens and around tables where silicone spray may have been used
- Keep application equipment clean
- Do not use mixed systems, use only recommended products
- Re-sand existing old floors, changing sandpaper and screens for each coat

Rectification

Unfortunately in most cases a total re-sand and repeating the coating process, covering all bases, is require and the only guarantee to fix a de-lamination problem on a floor. If de-lamination is only in small areas a patch and buff be an option (Technical Note # 5)