

TECHNICAL BULLETIN – TB118

TILING OVER PREVIOUSLY PAINTED SURFACES

Date, Thursday, 8 September 2016

INTRODUCTION & SCOPE

A common situation encountered when doing renovations is the temptation to apply ceramic tiles over previously painted surfaces. Whilst some Ardex adhesives will generally adhere to painted surfaces, the installer needs to consider that this is not an ideal substrate for tiles to be applied to and it is best to remove it.

With regards to paints, certain exceptions apply to particular primers and these are noted.

Remember, the tile bond is only as good as the adhesion of the paint to the substrate, not the tile adhesive to the paint.

THE ISSUES

Paints are designed as decorative finishes and are intended as the final surface. When applied on walls they are only intended to carry their own weight, and are not designed to carry the loads imposed by tiles, adhesives and grout which may cause the paint to de-bond and then the tiles go with it.

Some types of paints are incompatible with the typically alkaline nature of tile adhesives and will therefore chemically or physically degrade when tiled over, again resulting in de-bonding. Water based paint (e.g. Acrylics/PVA) can soften when damp resulting in peeling, and PVA paint can be water soluble and breaks down when in contact with the wet tile adhesive.

Paints with very glossy and hard finishes such as polyurethanes or resin rich epoxies provide very non-porous and inert surfaces. The tile adhesives do not develop a chemical or physical bond to these paints and so can de-bond.

Texture coated surfaces are generally too rough to get a flat surface and may result in irregular tiled surfaces.

Surfaces that are not sound for example; peeling, flaky, dusty, oily or dirty are poor surfaces for tiling on.

RECOMMENDATIONS

| Paint type | Suggested preparation |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Solvent based alkyds ('oil based paints') | Mechanically roughen full surface with coarse sand paper (40 grit) where sound to a CSP1 profile. If unsound remove 100% to substrate. Priming with Ardex P9 or Ardex P82 will improve bond. |
| Water based acrylics and PVA | Mechanically remove 100% to expose the substrate. |
| Calsomine and similar washes | Mechanically remove 100% to expose the substrate. |
| Polyurethane | Mechanically remove 100% to expose the substrate. |
| Epoxy Enamels and Finish Coats* | Mechanically roughen the surface 100% to a CSP1 profile then prime with Ardex P9 or Ardex P82. |



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|------------------------------------|-------------------------------------------------------|
| Paving paints and timber finishes | Mechanically remove 100% to expose the substrate |
| Texture coats | Mechanically remove 100% to expose the substrate |
| Bituminous coatings | Mechanically remove 100% to expose the substrate |
| Generally unsound painted surfaces | Mechanically remove coating 100% to expose substrate. |

* The application of two part epoxy primers (which are filler rich rather than resin rich as is the case with epoxy enamels), is a requisite practice over metal surfaces before adhesive fixing tiles. The same applies to the application of tile adhesives over water based epoxy sealers such as ARDEX WPM300 HYDREPOXY (\pm sand seeding). Both these coatings are acceptable surfaces.

There are also two other points to consider –

- ⇒ Premixed adhesives applied over painted surfaces can display extended drying times.
- ⇒ Where coating is not fully removed (alkyd paints), this procedure is only recommended on internal surfaces, and is not recommended on external surfaces.

CAUTION – Older oil based paints applied before the mid 70's may contain lead, for example the 'red lead primer' contains lead oxide. It is not recommended that these paints be sanded and expert advice on how to remove these coatings should be sought from a paint manufacturer or a specialist consultant in this area.

CONCLUSIONS

Some types of paints can be tiled over, however for the reasons mentioned already, Ardex recommends that the best approach is to remove paints from the substrate and apply the tile adhesive to the cleaned surface.

Clean and properly prepared substrates always provide the optimal surface for the application of tile adhesives.

IMPORTANT

This Technical Bulletin provides guideline information only and is not intended to be interpreted as a general specification for the application/installation of the products described. Since each project potentially differs in exposure/condition specific recommendations may vary from the information contained herein. For recommendations for specific applications/installations contact your nearest Ardex Australia Office.

DISCLAIMER

The information presented in this Technical Bulletin is to the best of our knowledge true and accurate. No warranty is implied or given as to its completeness or accuracy in describing the performance or suitability of a product for a particular application. Users are asked to check that the literature in their possession is the latest issue.

REASON FOR REVISION

24 month review. Addition of Ardex P9 and P82. Changes to recommendations for epoxy paints.

REVIEW PERIOD

24 months from issue

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