

TECHNICAL BULLETIN

ISSUES WITH APPLICATION OF DUNLOP PRODUCTS OVER PEBBLECRETE

INTRODUCTION & SCOPE

A common question DUNLOP Technical advisors receive concerns the application of levelling products, membranes and ceramic tile adhesives over 'Pebblecrete'. In this bulletin we shall briefly discuss the surface preparation required.

WHAT IS PEBBLECRETE?

During the 1970s and 1980s 'Pebblecrete' was widely used as a decorative rendering medium, or wear surface used on verandahs, decks, pool surrounds, driveways and often on tilt panel slabs and cement façade features. The basis of 'Pebblecrete' is a decorative aggregate, either natural pebbles or a manufactured equivalent and a binder. The binders can be either a Portland cement based material or a resin rich epoxy. Commonly the finished surface is coated with a clear and glossy polyurethane or acrylic sealant.

'Pebblecrete' should not be confused with concrete displaying exposed aggregate (sometimes polished) which is not an applied finish, but a treatment method of an existing concrete substrate.

PEBBLECRETE AS A SUBSTRATE

Adhering levelling cements, tile adhesives or membranes to a

surface requires that surface to be stable, well bonded and usually porous. Older 'Pebblecrete' surfaces can be poorly bonded which means that the surface can lift and break away, taking the overlying surface with it. Levelling cements can develop a degree of tension during curing and tile systems tend to move with changes in temperature and wetness. These stresses can also affect the bond of 'Pebblecrete' to the substrate.

There can also be issues with adhesion to 'Pebblecrete' with regards to the binder, sealers and nature of the aggregate. Sealers can act as good mould release agents which can lead to the applied material de-bonding. Resin rich epoxies can be difficult to bond to due to the surface properties and chemical inertness. Weathering can also lead to chalkiness in the epoxy which provides a weak layer. Highly polished and smooth river aggregates provide a non-porous surface which is not ideal for bonding to.

Recommended Surface Preparation

DUNLOP recommends the best way of dealing with 'Pebblecrete' surfaces prior to the application

of levelling cements, ceramic tile adhesives and membranes is to remove the material from the surface via mechanical methods. This includes diamond grinding scabbling, scarifying, shot or grit blasting back to open porous concrete. The reason for this approach is that it removes any uncertainty as to the type or stability of the 'Pebblecrete', and eliminates adhesive bond/compatibility issues.

DUNLOP does not recommend at all, tiling over Pebblecrete surface inside pools.

Notes

Always refer to the product data sheets for specific usage details.

The information contained herein 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 the product application.

Users are asked to check that the literature in their possession is the latest issue.

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