

TECHNICAL BULLETIN

SOLVENT GROUT SEALERS AND RUBBERISED TILE ADHESIVES

INTRODUCTION & SCOPE

The grout market has seen the increasing use of grout sealers over the last few years, ostensibly to increase water resistance, aid cleaning and to increase colour intensity. The types of sealers used are predominantly water based products, but there are also solvent based versions as well. This technical bulletin discusses an effect that has been observed where solvent based sealers have been applied onto grout which overlies rubber modified tile adhesives (using black rubber crumb).

THE ISSUE

DUNLOP has observed dark discoloration occurring on grout treated with some solvent based grout sealers, where the underlying adhesive used to bond the tiles was a rubber modified flexible adhesive. These observations were made in the field on job sites, and some laboratory examination of applied of sealer onto samples of rubber modified adhesive, have shown that the discoloration appears to arise from solvent attack of the crumb rubber.

The solvents used are predominantly are solvent naphthas and 'aromatics' and 'white spirits'. This particular class of solvents is very effective in extracting oils, light fractions and colourants from rubber and then mobilising them. Recycled rubber from car tyres is more subject to leaching than first use synthetic rubber. A major advantage of solvent based sealers is their superior penetration ability into the grout, but this means that the solvents can also affect the underlying adhesive bed, leaching out the staining materials.

SUGGESTIONS

Where a rubber modified adhesive has been used to bond the tiles, and a solvent based grout sealer is to be applied, it would be prudent to install either test areas to check for discoloration, or apply the sealer to a section of the adhesive to check for solvent attack on the adhesive components.

Once the grout has been stained, it cannot be cleaned or decolourised and it is necessary to either replace the grout. Potentially it may be feasible to apply a grout paint, however it needs to be recognised that the sealer can interfere with the applied coating. One type of grout paint is the epoxy based grout paints, or alternatively the DUNLOP GROUT PAINT can be used when the solvent has fully dissipated. We strongly recommend doing a test area in this situation to confirm that the paint will bond and not develop show through.

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.

It is the responsibility of the users to confirm that all products are suitable for the application and system, and are compatible with products in the application.

More detailed technical advice can be obtained by ringing DUNLOP on free

call using the numbers shown below or via email from the contact us page at the DUNLOP DIY website.

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GLOSSARY

Aromatic solvent—Is an older name for solvents such Tolulene (CAS Number 108-88-3 UN Number 1294) or Xylene (CAS No. 1330-20-7, UN Number 1307), which have a distinctive cyclic chemical structure and odour. These are highly flammable, should be kept out of skin contact, and used in well ventilated areas.

Recycled rubber—This raw material is derived from old car and truck tyres which is ground and crumbed. It contains dark brown to black fractions, oil based contaminants and carbon black that can be easily leached by solvents.



Solvent naphthas—Is a generic name for a range of solvent chemicals usually containing straight chain petroleum compounds, but also aromatic fractions (CAS 8030-30-6).

White spirit—Is generic name for a range of solvent chemicals usually containing straight and cyclic chain petroleum compounds, and is also called turps or mineral turpentine. It may be interchangeable with naphtha. There are different grades with several different CAS numbers (64475-85-0 white spirit type 1, 64741-92-0 white spirit type 2, 64742-48-9 white spirit type 3 and 64742-88-7 white spirit type 0).