Help and advice

Martin Cummins on adhesives

There is no single pr oduct that suits all!

THE world of contract flooring consists mainly of five product streams namely, carpet, vinyl, linoleum, rubber and timber. How is it then that there are so many adhesives offered, not just one for each stream?

This question must surely have been on the lips of most installers at some point and having just completed our updated Flooring Guide, I admit to having thought about this too! Look through any of the recommended adhesive guides produced by leading manufacturers and you'll find there are often many options for one specific type of floorcovering. Surely one would do?

It is a fact that there are some well-known adhesives out there which may be used for the majority of jobs, but to enable successful flooring installations it is essential to have access to a full and complete range.

Product ranges are not invented, but have evolved over time to maximise performance under very different conditions, typically in response to how products are being used and even how the flooring products have changed in material and construction over time.

The biggest influence driving ever increasing product ranges is the need for an adhesive to suit floor material, application method, specific installation needs and site demands.

Adhesives are often developed in cooperation with the major flooring product manufacturers and as a consequence of doing this you quickly realise that one carpet is not necessarily the same as another.

This is the reason, therefore, why it is wrong to assume one adhesive is the perfect choice for all types of carpet, admittedly it may be right for the vast majority, but you could come unstuck (oh dear! Sorry about that!) if you don't check.

The size and weight of our Flooring Guide is proof enough that to discuss all the different adhesive ranges is beyond the scope of this article, but I will briefly look at the product stream loosely termed vinyl as it is a good example of the need for a variety of adhesives.

The backing on a floorcovering is where the adhesive bonds to and is generally the biggest influence on adhesive choice.

However the overall construction of the product and how it may behave in different situations is also of great importance.

Within our recommendations we have some eight adhesives that can all be used with vinyl, but they are not there to confuse, they form part of a well thought-out range of products formulated and developed to offer a solution for all different vinyl floorcovering constructions, all the conditions the vinyl may be subjected to and for all the applications a client may give to the contractor. Also, not forgetting the contractors themselves there are also products to make their life easier.

For a standard, typical application of sheet vinyl onto cementitious screeds, you would be looking to use a standard sheet vinyl adhesive. Also there may be a desire by the contractor to use a pressure sensitive adhesive, which can make life a little easier for some installations, and which is particularly beneficial with vinyl tiles under standard stable conditions.

For applications in wet areas there is always the possibility that moisture may get under the vinyl, in which case the right choice is a waterproof adhesive.

A different adhesive again would be needed for conductive installations, or where speed of installation is paramount, the use of a sprayable product may be ideal.

Vinyl has also found its way onto walls where a high-tack high strength adhesive would be the essential.

In recent years the increase in the market of luxury vinyl tiles or LVTs has seen ranges widened to include much stronger adhesive, some with high temperature performance enhancement, as these tiles may well be used together with underfloor heating systems or in conservatories, placing much tougher demands on adhesive performance therefore requiring characteristic of their own. Similar stories for carpet, lino, timber etc. can be told.

Surprisingly, as a manufacturer, we would love a one-product suits all, but unfortunately that is never the case, and if it was it would be at a premium price, but what it does highlight is the need to understand the different products in a range and how each is there to ensure every installation is a successful one. CFJ

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David Gatfield on floor coatings

Think of paint that's not up to scratch

THERE are many different types of coatings on the market. Some people think of coatings as paint. It's true that some coatings are polyurethane based, similar chemically to gloss paint, but when a product is designed for medium to fairly heavy use on a floor, that is normally where the similarity ends.

Floor coatings can be anything from clear acrylic to metalised emulsions, often used on modern flooring such as rubber or vinyl, to provide a durable protective layer to resist dirt and in most cases, prevent the flooring covering from premature wear and surface scratching.

Being just a few microns thick, this type of coating needs regular maintenance to stop it breaking down due to trafficking. This is normally achieved by high speed buffing and a maintainer which is basically liquid detergent and hydrated polymer mixed with water.

The solution is sprayed onto the floor surface and the action of the high speed machine causes the water to evaporate, leaving the 'solids' behind and filling in the worn areas of the acrylic coating.

Thicker more permanent variations of the above can be used on quarry or ceramic tiles to enhance the appearance if they become worn. Classed as semi permanent, they are applied with a mop or pad and can be trafficked within an hour or so.

At the other end of the scale there are coloured high build floor coatings, many times thicker and therefore more durable than the products above. These are designed as a finished floor in warehouses, factories, service and tyre bays in garages and even aircraft hangars. If applied properly they are a robust, decorative, cost effective and durable floor surface which can be quickly applied.

These systems can from 180 to 500 microns or 0.5mm thick for a two coat system. Depending on what you need it to do, they are normally water or solvent based epoxy or polyurethane. The basic difference is that PUs are generally more chemically resistant than the others and as a result are often used where spillages of noxious substances is a possibility.

As you would imagine surface preparation prior to the installation of the high build systems is vital for their successful application but more importantly for their longevity.

If the preparation is poor, the coating, being only 0.5mm thick at the most, will soon break down.

Basic preparation of a subfloor to receive a floor coating should include mechanical abrasion or light enclosed shot blasting, before thorough vacuuming of the area, even on new floors.

Coatings can also be used on walls for abrasion or chemical resistance; in their vertical surface format they occasionally need adapting with a thixrotropic agent to prevent the thicker ones sliding down the wall, but this is normally done by the manufacturer.

There are many variations in the field of coatings. We manufacture epoxy and polyurethane resin systems and coatings. CFJ

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