Everything you should know before investing in a new commercial or industrial flooring

By Chris Kealy, Managing Director of Stonhard UK

Choosing the correct floors for your environment

When it comes to choosing the right industrial, commercial or office flooring your options are vast; from vinyl tiles, carpets, linoleum, natural materials such as marble, granite and cork flooring to the more sturdy cement resin, terrazzo, concrete screeds or epoxy and resin floors. But which one is correct for your site?

In order to choose the right floor, it's important to first consider what your surface must withstand. Is it a high-traffic environment? Do you use heavy equipment? How heavy is the footfall in the area? Will the surface come in contact with water or moisture on a continuous basis? Are high heat or temperature extremes a factor? Does your area require chemical resistance? These are just a few of the many important considerations that will come into play when selecting the right flooring system.

There are also, of course, design considerations. What colours, finishes, patterns and textures meet your needs? Do you want to add a custom logo or pattern to your floors? Do you need to meet certain environmental specifications?

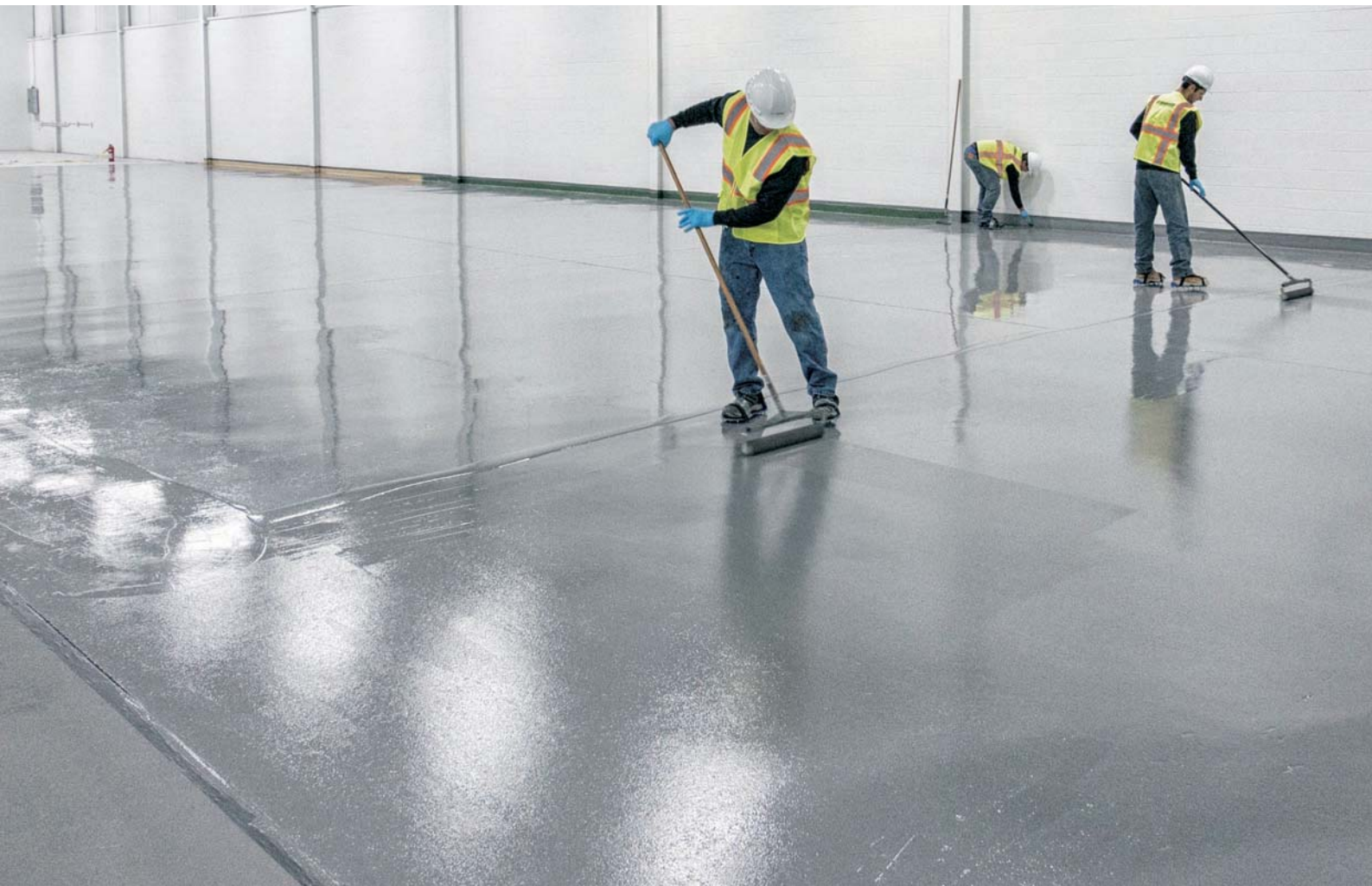
Choosing a floor that does not support the conditions of your workplace can result in hazards for employees and visitors, downtime for repairs that may need to be made over and over again, and even extensive shutdown periods to replace a flooring system that didn't last as long as expected.

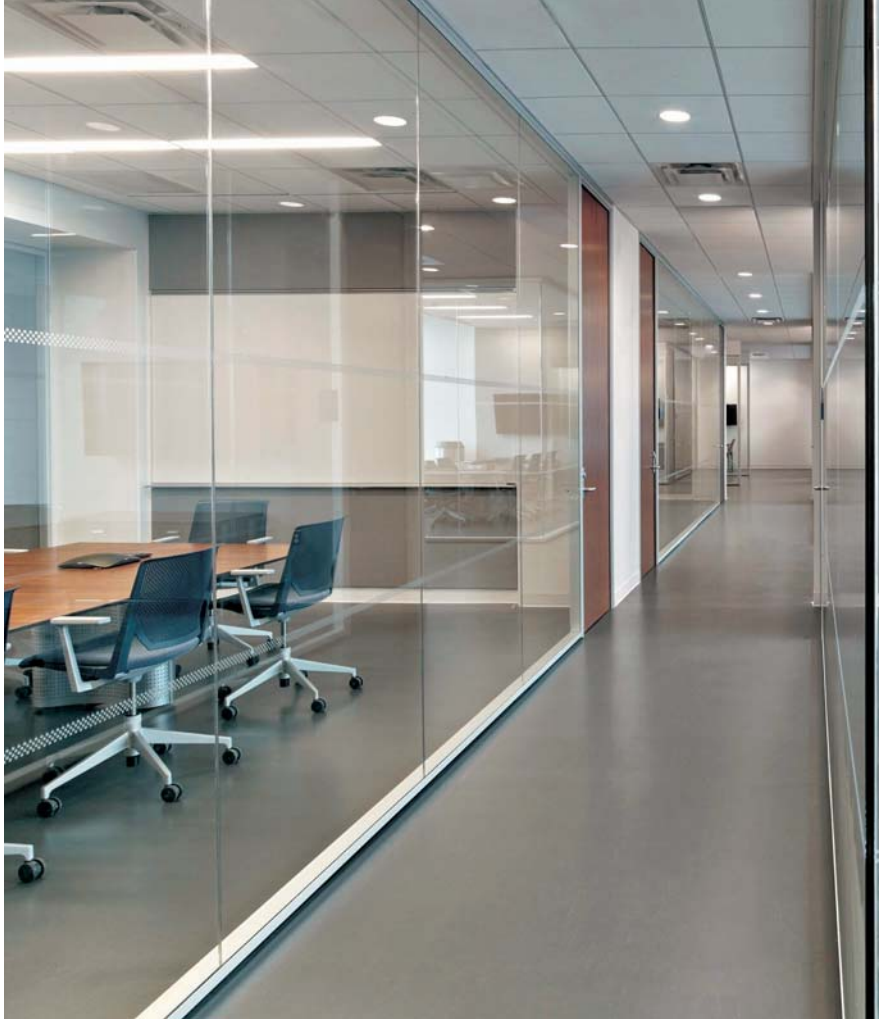
Why should you consider seamless floors?

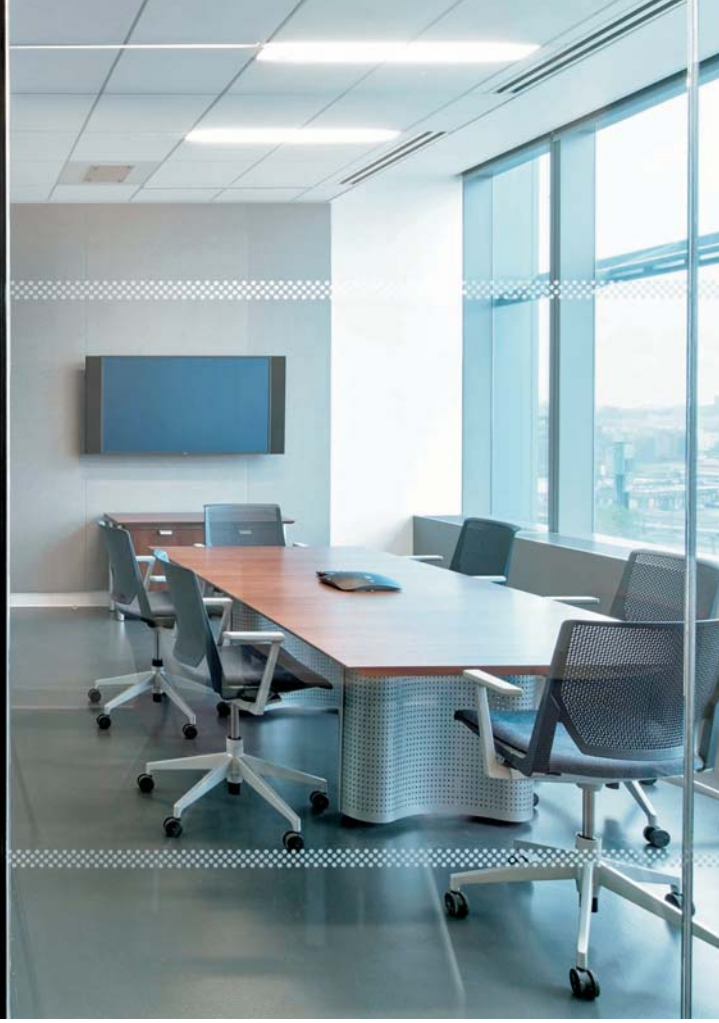
Seamless flooring can help you to avoid these issues. Seamless floors are floors without seams, ridges or joints. They are power troweled urethane or methyl methacrylate (MMA) formulations that become a part of a building's very structure.

Epoxy and urethane floorings are widely popular across a range of industries from general manufacturing, healthcare, pharmaceutical, chemical processing, food and beverage to hospitality, transportation, education, office and public spaces environments. Resinous floors can meet almost any performance feature required for the indoor or outside site:

Durability - epoxy and resin floors are stronger and more durable then concrete or any other material. They have a longer life cycle and offer cheaper maintenance and repair costs as they can be restored or replaced without removing the existing floors.







Seamless - as they have no crevices, they are a lot more hygienic and easier to maintain.

Abrasion and impact resistant - they withstand heavy traffic and heavy equipment really well.

Slip-resistant - providing a safer working environment.

Chemical-resistant - standing up to spills, splashes and stains.

Quick to install - epoxy and resin floors can be installed as quickly as two days, minimising the disruption to your business.

Appearance requirements - Resin floors come in a range of finishes and colours from high gloss, to smooth or textured finishes.

Quick to clean - easier on maintenance crews, minimising the need to use chemicals (no vax finish) and water usage to keep them clean.

Thermal shock resistant - protecting floors from cracking due to extreme temperature or temperature changes.

Anti-static (ESD) - protecting your employees and equipment against electro-static discharge.

Sustainable - thanks to eliminating heavy metals in aggregates and using water based urethanes, you can reduce the production of hazardous waste and reduce your impact on environment.

Life-cycle cost of floors

Flooring can be a major expense. Resin floors are highly durable and, depending on the environment, can protect your floors for over 20 years. To evaluate the feasibility of your investment, overall life-cycle cost including maintenance and repairs should be considered. When comparing life-cycle cost of 1,000 square metres commercial flooring over 15 years, Terazzo flooring is by far the most expensive averaging around £360,000; nearly six times as much as decorative resinous flooring (Source:The Stonhard Group).

What happens during the installation of seamless floors?

One of the most important aspects of a successful resinous floor installation is the preparation of the concrete substrate. Concrete must be mechanically prepped utilising diamond grinders, media blasting or scarifying. This is

critical in order to remove the laitance (the weak, brittle layer that forms on the surface of concrete during its cure) and any potential contamination from the surface of the concrete.

Just about all concrete shrinks during its cure. As a result, small cracks will occur that will, depending on the thickness of the resinous system that is being installed, need to be addressed. Finally, contamination may also need to be addressed when preparing a concrete substrate. Concrete can act as a sponge if it is not sealed or coated, so if contaminants were spilled on its surface, they may have been absorbed. If contamination is a concern, the use of degreasers and special primers may be required after the surface has been prepared. Be aware of any contractor who proposes to skip any of these steps.

Once your concrete is prep'd, the correct preparation of the resinous flooring products is just as important. Think of it as baking a cake. If preparation of the substrate is not done adequately, there is a significant chance of issues occurring, such as bonding to the substrate and other problems.

Resinous flooring products come in various configurations ranging from coatings to trowelled mortars, broadcast systems to terrazzo alternatives. The installation technique will depend on the type of substrate used.

Speed of installation

A most common concern when investing in a new floor is whether you'll need to shut down your operations for the installation. A good contractor will work around your schedule to ensure a minimal disruption to your business. This may mean working at weekends, over public holidays or at nights. An epoxy or a urethane grout can be applied in as little as 18-24 hours, helping to keep fast-paced schedules on track and reduce downtime.

How to choose the right flooring contractor?

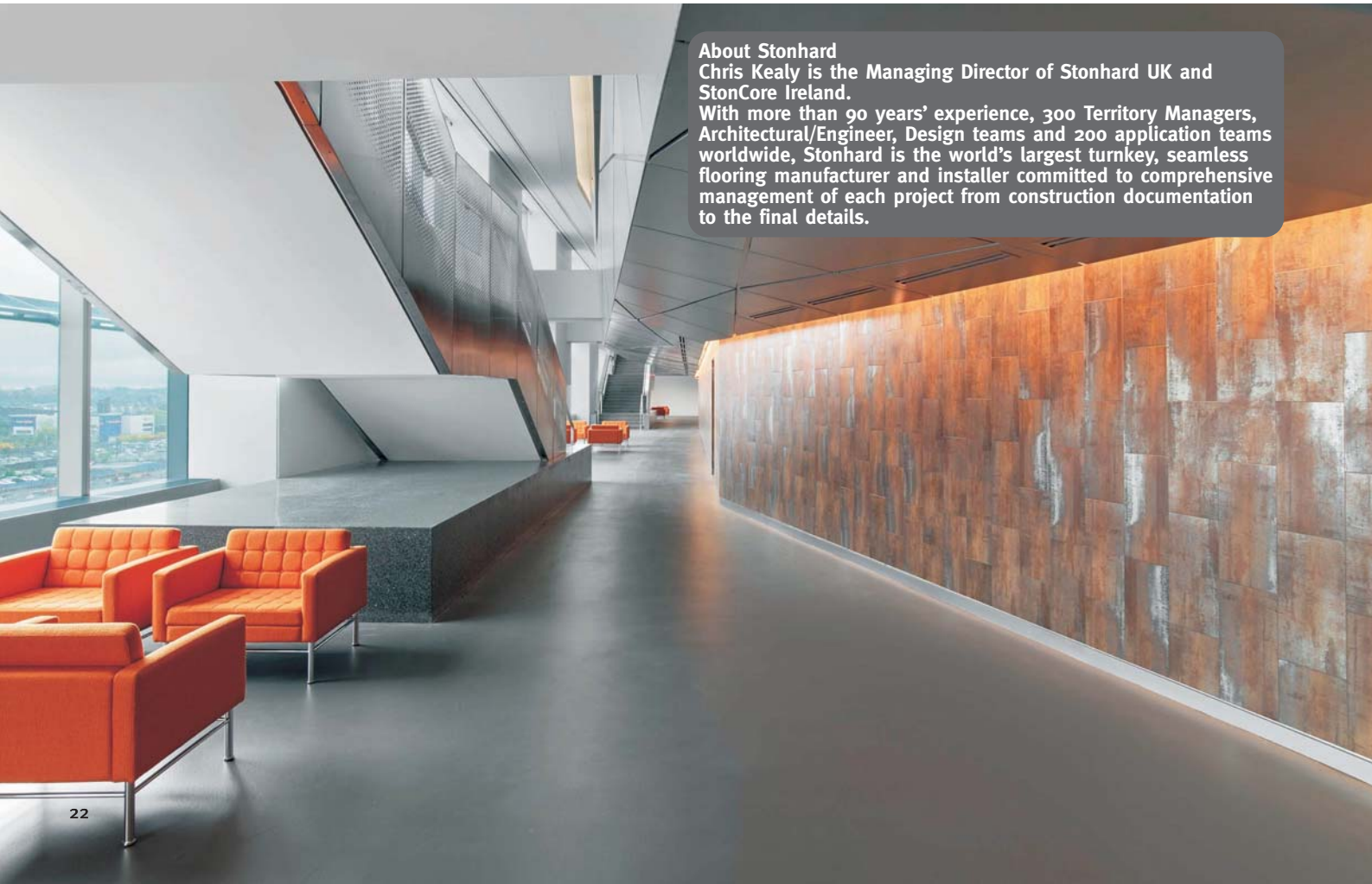
What should you look for when choosing a flooring supplier? Choose a specialist experienced in installing floors within your environment who manufacturers and installs their own products. Dealing with multiple suppliers during your project can be a hassle. A single-point contact who will take care of your project from start to finish is much easier to manage.

A good, turn-key provider will also offer an added bonus of a single-point warranty covering both products and labour as the preparation of the substrate and the installation are the most crucial factors to the success of your new floors. Most components have to be prepared within 60 to 90 seconds and if not mixed properly, there is a significant chance of issues occurring.

Ask how safe the proposed materials are. Are they solvent-free? Is there a risk of toxic or flammable fumes occurring during the mixing and installation process that could potentially harm your employees or contaminate the environment? What are the technical qualifications and the safety record of the crew on-site?

Find out about the waste and packaging produced during the installation. Will the chemical waste be responsibly disposed of on project completion?

Finally, ensure that after-sales service is included in your price. Good flooring specialists will make periodical visits to your site after the installation to resolve any issues and ensure your continued satisfaction with your new floors.



About Stonhard
Chris Kealy is the Managing Director of Stonhard UK and StonCore Ireland.
With more than 90 years' experience, 300 Territory Managers, Architectural/Engineer, Design teams and 200 application teams worldwide, Stonhard is the world's largest turnkey, seamless flooring manufacturer and installer committed to comprehensive management of each project from construction documentation to the final details.

Flooring