



## DESSO® makes the cut on flooring installation costs

**Project:** Telethon Kids Institute

**Location:** Perth, Western Australia

**Product:** Desso® Fields & Tweed EcoBase  
Safetred Spec & Safetred Universal Plus

**Some lateral thinking by Tarkett Australia has entirely eliminated wastage of its DESSO® carpet tiles during the fit-out of a Western Australian children's medical research facility – saving 30 percent on material costs and 50 percent on labour, compared with a previous proposal.**

Designed by Woods Bagot and built by Multiplex, the Telethon Kids Institute's new, larger home at the Perth Children's Hospital features world-class equipment and facilities to assist research into causes and treatments for childhood illness.

Woods Bagot workplace design leader, Stirling Fletcher, said the architects' design vision for the Telethon Kids Institute (TKI) was inspired by different parts of the human body. "The design team compared spatial relationships of the facility to that of human biology systems," said Mr Fletcher. "The flooring design was a key component of these spatial ideas, as the canvas upon which to create aesthetics aligned to the biological symbols and patterns" Mr Fletcher said.

For the open-plan workspace that encourage staff collaboration, a repetitive three-dimensional flooring



pattern was chosen to mimic the process of cellular growth through duplication and division.

Multiplex and its contracted Perth-based commercial flooring specialist, Floorwise, were tasked with turning its design into reality. Floorwise director, Peter Vodicka, said that upon examination of the proposed carpet tile specifications he noticed it was not a suitable choice for meeting the architect's design intent, budget and build program. "A 500mm x 500mm tile was initially specified," said Mr Vodicka. "The issue was that in order to achieve the intended visual effect and make it convincingly 3D, only a diamond shape would work.

"With the existing spec's you'd have needed two standard tiles to make one diamond. You'd have to cut them and there would be a huge amount of wastage. Basically, you'd be looking at a huge amount of manual

cutting on site, which would slow the installation down and cost a hell of a lot in labour."

With a fixed budget and a tight timeline there was no way to proceed as initially planned. "At that point they were either going to have to pay a lot more to complete the design or do something less complex," Mr Vodicka said.

Fortunately, as the only all-inclusive commercial flooring company in Australia, Floorwise is highly experienced with design and construction projects and used to inventing solutions for situations particular to a project's needs. It turned to Tarkett business development manager, Hazel Derrett, with an unorthodox idea to secure a diamond result from a rough situation.





“Focusing on the need for the tiles to be diamond-shaped, we sought a supplier who might be able to pre-cut them for us,” he said. “We asked Tarkett’s Hazel Derrett to liaise with Desso’s factory in the Netherlands and they said they’d be willing to give it a go, which was unprecedented and so exciting.”

A plan for cutting a two-metre-wide sheet in order to eliminate wastage was then hatched.

“A solution was proposed that would utilise the entire width of the manufactured product,” said Mr Vodicka. “Normally with squares, the width is used up in a half-metre tile but DESSO make a carpet cloth two metres wide which is then backed and cut.

“The diamond shapes were originally set up to go in a different direction, but we realised that by adjusting it to be almost like a herringbone, or chevron, running across and creating two different directions – one going down and an angle coming up – we would have no wastage. I think the original allowance for wastage was 18 percent and we got that down to zero.”

Tarkett’s designers then created a cutting plan for the new design. Tarkett technical marketing & sustainability manager, Reza Karani, said Tarkett’s in-house designers can use programs such as AutoCAD, Revit and Photoshop to help customers visualise the finished product. “Our teams worked together to finesse the cutting plan and ensure it met the Desso factory’s capabilities,” said Mr Karani. “The process was a real demonstration of how we can take a

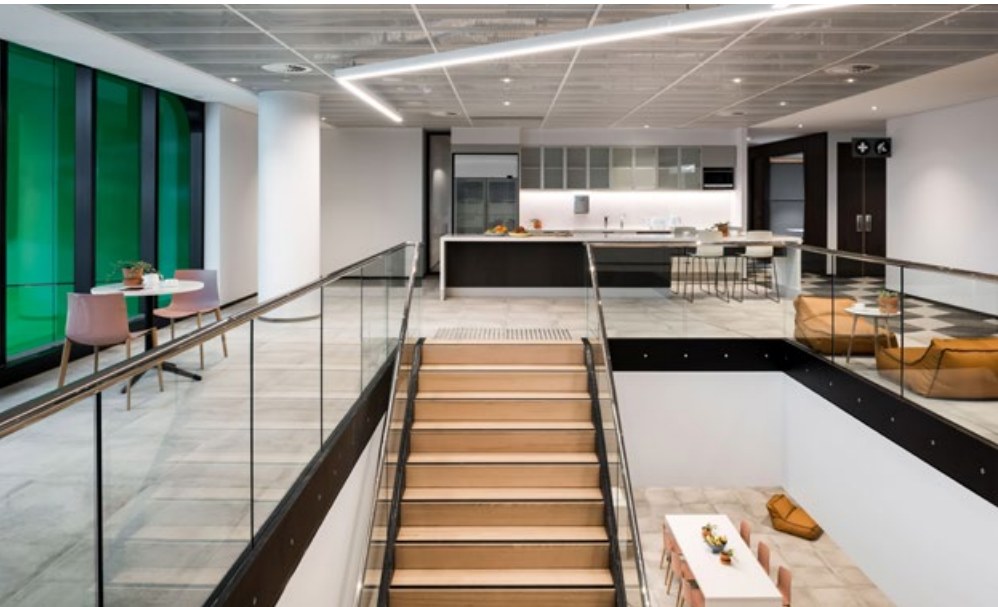
standard product and customise it to be something truly unique. Our Desso factory even custom-made diamond-shaped boxes for space-efficient and safe transportation of the precision-cut tiles, which was a neat little touch.”

Once the cutting plan was finalised, samples were made up and put to Woods Bagot and Multiplex as an option that was ultimately accepted.

Over 5000 DESSO® Fields textured carpet tiles were specified, as well as DESSO® Tweed B529. DESSO® Fields tiles – which, with its enlarged and irregular loops, give the impression of being hand-woven – cover approximately 5000m<sup>2</sup> of TKI’s flooring.

Nearly 2000m<sup>2</sup> of Tarkett Safetread heterogeneous vinyl sheets with enhanced slip resistance were





specified for heavy-traffic areas within TKI such as corridors and laboratories.

Tarkett further assisted the process by designing an installation plan in collaboration with Floorwise, in order to avoid any shading implications potentially stemming from the modified cutting plan.

“We walked through the design rationale and implementation, and created an installation strategy that would provide a uniform visual outcome,” said Tarkett’s Hazel Derrett. “If the carpet tiles aren’t installed with a uniform shading in the pile direction, then you will see that one tile has a different shade than the one next to it and it won’t be seamless.

“We labelled all the tiles on the back, in sequence – such as A- or a B-shading for a line. It meant the Floorwise installers knew exactly what to do and greatly streamlined the process. Due to the floor pattern complexity, it took longer than a standard job. But because of the labelling system it was relatively swift for the installers,” Ms Derrett said.

This would not have been the case if the tiles were hand-cut, however. “You’re never going to get a job like that right – cutting diamond shapes by hand – because of the human element. Not even on a smaller job of, say, 100 square metres – let alone the 5000-odd square metres for TKI,” he said.

“The other issue with hand-cutting is that with more pieces you have more potential for edge-fray, and those cuts are more noticeable if the pile is matched incorrectly.

“In this case, because the tiles were machine-cut, they were perfect. Even then, we still needed to be careful because over such a big area it can step-out very easily.”

After finishing the job, Mr Vodicka estimated that 30 percent less material had been required than would have been the case with the original cutting plan and also that it required 50 percent less time in labour.

Floorwise’s Peter Vodicka thinks the way the carpet tiles were cut to suit the design may be a world-first. “I don’t think it’s ever been done before, so as far as I know it could be a world-first,” he said.

