



**CASE STUDY:**  
**COMMERCIAL CAR  
PARK, SYDNEY, NSW**

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FABRICATOR AND INSTALLER: Sydney Shade Sails  
PRODUCT: Fluo2Max Type 1



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## BACKGROUND

When a truck ran into a sail on top of a large-scale shading structure at a Sydney shopping centre car park, a swift, high-quality fabric replacement became essential to restoring the site's functionality, safety and aesthetic appeal.

By the time Sydney Shade Sails became involved, the project was already around 12 weeks behind schedule, with the shade structure still incomplete. An earlier contractor had been engaged, but the works had not progressed to completion, leading to this new appointment. As specialists in the manufacture and installation of high-quality shade sails, privacy screens and awnings, Sydney Shade Sails took over the insurance-led project, eager to get the job back on track and provide a reliable new membrane solution.

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## CHALLENGE

Leonard Collins, Managing Director of Sydney Shade Sails, points to the shortage of architectural fabrics as the project's primary hurdle. The traditional European-sourced membranes from Ferrari and Mehler – brands that, he notes, "have been around in the marketplace for decades" – were out of stock in Australia, with suppliers advising that new shipments would not arrive for months. For a project already badly delayed, waiting for international stock was not a viable option.

But the challenge extended beyond logistics – it was a matter of professional rigour. In the field of tensile membranes, substituting a material requires rigorous testing to ensure the fabric performs as expected and doesn't compromise the structure. In applications like this one, Leonard explains, tensile membranes are placed under constant tension, essentially creating a big, permanent sail. "In a wind gust," he says, "it's akin to pulling a massive yacht through the water." As a result, the steel and the fabric must function as a unified, high-strength system.



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## SOLUTION

Luckily, Ricky Richards, Sydney Shade Sails' long-standing supplier, "came to the rescue," as Leonard puts it, proposing their Fluo2Max Type 1 fabric as a viable alternative.

Manufactured by European textile pioneer Sioen, this advanced tensile architecture membrane is engineered specifically for lightweight tensioned structures and offers a market-leading 20-year UV degradation warranty – a major step-up from the 15-year industry standard.

Endorsed by the Australian Skin Cancer Foundation, the membrane features a TiO<sub>2</sub> (titanium dioxide) prime coat barrier for superior UV resistance, while the dual-sided PVDF topcoat ensures ease of maintenance. The product also comes in a 3-metre-wide format, making fabrication easier, faster and more cost-effective. And, crucially, Ricky Richards' product was readily available when others weren't.

On paper, this combination of superior longevity, excellent specs and reliable supply clearly positioned the fabric as a high-quality, long-term solution. But the product still had to prove itself in real-world conditions. While Sydney Shade Sails has had a long-standing relationship with Ricky Richards, this was Leonard's first application of Fluo2Max Type 1, so he insisted on thorough testing to verify its biaxial properties and fabric tolerances under tension.

"We needed to understand the stretch in the warp, the weft and the diagonal," Leonard says. If that due diligence isn't done, he cautions, a sail can slowly stretch under heat, rain and wind until it ponds, filling up with water and ultimately failing. To ensure the integrity of the project, the fabric was sent away for specialist testing to define a safe level of tension. And, to Leonard's satisfaction, the performance was even better than expected. "The fabric was patterned and fabricated," he notes. "And it came out perfect the first go."

By delivering a robust, confidence-inspiring structure engineered for decades of reliable performance on a tight schedule, Leonard's team turned an insurance-led job into a display of problem solving, professional rigour and material integrity. And both Sydney Shade Sails and Ricky Richards' Fluo2Max Type 1 proved to be excellent replacements for the original contractor and the membranes first considered for this project. So much so that Sydney Shade Sails has already been invited back to provide a quote on replacing the two adjacent sails – and Leonard knows exactly which fabric he's planning on using.

"The fabricators involved in the project agree it's a great material to work with, and the results speak for themselves," he says. "We look forward to winning the project and we will definitely be using Fluo2Max for those new skins as well."

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