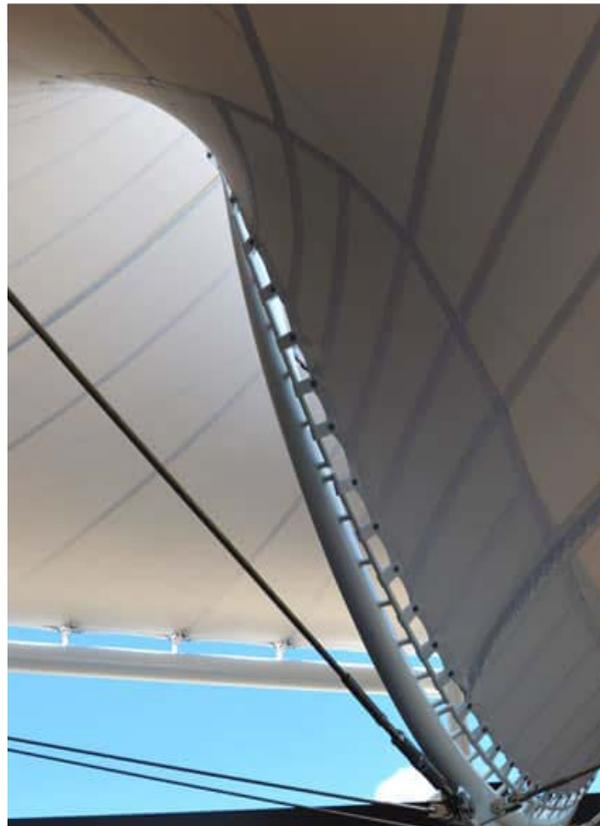


High Performance Textiles & Fabrics



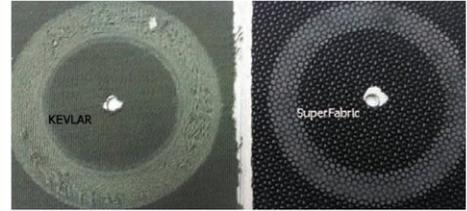
WE KNOW POLYMERS - WE KNOW TESTING

High performance textiles and fabrics are widely used for tensioned and engineered shade-sail structures. Known as tensile fabric structures (TFS) they protect from the elements whilst enhancing visual design in applications including sports stadiums, car parks, shopping complexes and facades.

The self-cleaning properties and UV resistance of these tensioned fabrics is imparted by a fluoropolymer coating on the fabrics. ExcelPlas has developed techniques to determine the integrity and durability of these coatings and the underlying tensile fabric materials.

ExcelPlas conducts the following testing on the tensioned fabrics:

- infra-red analysis of the PVDF coating thickness
- fluorine elemental mapping of the PVDF coating
- retained tear strength of the fabric and textile materials
- cyclic flex testing of fabrics to test resistance of coatings/lacquers to fatigue cracking
- accelerated weathering (QUV exposure with UV and condensation cycles)



ExcelPlas has state-of-the-art facilities to provide physical and analytical testing of industrial fabrics, architectural fabrics and geotextiles.

Product quality, MQA and compliance testing.

Testing, quality inspection, compliance audits, factory assessment and installation quality assurance.

Fractography – we can interpret and characterise the morphology and topography of fracture surfaces to identify the reason for fracture and identify the mechanism of failure.

ExcelPlas has worked on the following advanced textiles and architectural fabrics:

- Graphene-Coated Textiles (Smart Textiles)
- Shade sails
- Self-Cleaning Fabrics



Some of the projects that ExcelPlas has undertaken;

- Cracking of PU lacquers on PVC coated fabrics using cyclic stresses
- Cracking of PVDF fluoropolymer coating on PVC-coated architectural fabric
- Testing of specialised fabrics for extreme Conditions (UV, heat, moisture, 'Jungle Testing')
- Microscopic imaging of yarn and thread configurations and Degradation
- Compositional analysis of the building blocks of fabrics to probe conductivity, strength, hydrolysis resistance and UV durability
- Development of graphene-coated conductive geotextiles

PRODUCT TESTING WEBSITES

- <http://www.excelplas.com/>
- <http://www.polymertesting.com.au/>
- <http://www.polypipetesting.com.au/>
- <http://www.uvtesting.com.au/>
- <https://www.claddingtest.com/>
- <https://www.minidredgers.com.au/>

DIGITAL MARKETING WEBSITES

- <https://www.geosyntheticnews.com.au/>
- <https://www.polypipenews.com.au/>
- <https://www.claddingtest.com/news/>
- <https://www.cablenewsaustralia.com.au/>
- <https://www.tailingsnews.com.au/>
- <http://www.masterbatchnews.com.au/>



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