



SAF™ Fabrics

Washable, Durable and Disposable Absorbent Solutions

a Technical Absorbents product

Technical Absorbents



The Absorbent Solutions Provider

For over 20-years, Technical Absorbents Ltd has been at the forefront of the fibrous superabsorbents industry with its unique Super Absorbent Fibre (SAF™) technology.

SAF™ can rapidly absorb 200 times its own weight in water, and 60 times its own weight in saline, extremely quickly. It is sold globally and used in a wide range of applications, e.g. medical, cable, food packaging, hygiene, apparel and filtration. SAF™ is manufactured in three standard staple lengths – 6mm, 52mm and 80mm – to suit different conversion technologies. All of the fibres are 10 decitex.

Although SAF™ remains at the heart of Technical Absorbents, it is the wide range of washable and disposable SAF™ fabrics that are now capturing the imagination of product designers.

SAF™ is a registered trademark of Technical Absorbents Ltd.





SAF™ Fabrics

SAF™ is the key component in all of our fabrics.

SAF™ fabrics absorb water and saline rapidly with excellent retention levels. Blood plasma can also be absorbed with greater resistance to solids blocking the surface. The SAF™ content does not shed when the fabrics are being cut and shaped for use and, when fully-loaded with liquid, they do not leach gel.

Selecting a washable/durable or disposable SAF™ fabric provides a highly absorbent solution that is soft and conformable. SAF™ technology is used in products that provide absorbency for people, industry and the environment, e.g. femme-hygiene, adult incontinence, wound care, apparel, food packaging, cable, filtration and horticultural applications.

Fabric selection will be influenced by the final end use, but also many other requirements – absorbency, thickness, durability and, often most importantly, budget. An experienced development team are on hand to offer advice and help with initial fabric selection for trials. Where possible, bespoke fabrics will be designed and manufactured to meet specific requirements.

Disposable SAF[™] Fabrics



NEEDLEFELTS

SAF[™] Needlefelt fabrics are capable of absorbing many times their own weight in water/saline. These fabrics are more robust than others within the range. They offer greater strength and integrity due to the nature of mechanical bonding (needling) used during manufacture. They are generally denser than other SAF[™] fabrics, but still offer the same great levels of absorption.

SAF[™] long staple fibre grades (52 mm) are typically blended with other synthetic fibres to manufacture SAF[™] needlefelt fabrics. Webs containing up to 100% SAF[™] can be produced at a wide range of fabric weights, typically between 150-1,000gsm. Laminates and other finishes are possible.

SAF[™] can be blended with a wide range of other fibre types to produce specialist fabrics up to 2.0m wide in the perfect environment. Short order trial runs can be facilitated where commercially viable.



AIRLAID

SAF™ Airlaid fabrics are capable of absorbing many times their own weight in water/saline and locking it away inside their core. Finishes such as laminates can also be added for additional functionality, e.g. waterproof backing. Such fabrics are ideal for a wide range of applications, including food packaging, wound care, hygiene and filtration.

SAF™ short staple fibre grades (6 mm) are typically blended with wood pulp and thermal bondable fibre to manufacture superabsorbent airlaid fabrics.

Airlaid webs within excess of 60% SAF™ fibre content can be achieved at fabric weights of approximately 80-1,000gsm.



THERMO-CARDED

SAF™ Thermo-Carded fabrics are cost-effective, thinner materials that still provide high levels of absorbency. They are lightweight, discrete, conformable and can be manufactured with a number of layers. This makes them ideal for applications that require performance without the bulk.

The fabrics range from 20-80gsm and are typically a blend of SAF™ and other synthetic fibres.

In addition, through air-bonded fabrics with high loft are available.



100% SAF™

A new range of unique 100% SAF™ fabrics provide a fully maceratable superabsorbent solution. These fabrics are ideal for use in spill capture products, such as those used in hospitals to contain bloods, urines and other liquids that need to be managed safely, hygienically and effectively.

100% SAF™ fabrics are available up to 2.0m wide and range from between 200-800gsm. To help protect the fibre during processing, the line is housed in a controlled humidity environment.



NETTING

SAF™ Netting fabrics are truly unique. They are manufactured using a SAF™ spun yarn and woven together to create an open net structure with high integrity. Such fabrics offer an extremely strong, yet lightweight, absorbent solution. Wicking is also made possible by other carrier fibres in the spun yarns. SAF™ Netting fabrics have already found a home within a range of applications, including horticulture and wound care. Net sizes can vary to meet requirements and laminates, e.g. PES weave can also be added either side.

Washable SAF™ Fabrics



WASHABLE

SAF™ Washable fabrics provide high levels of absorbency with the added benefit that they can be washed and re-used. This means that they can be used as absorbent layers in clothing or other accessories that need to be laundered. The fabrics can also provide significant cooling benefits when used as the absorbent core in evaporative cooling garments.

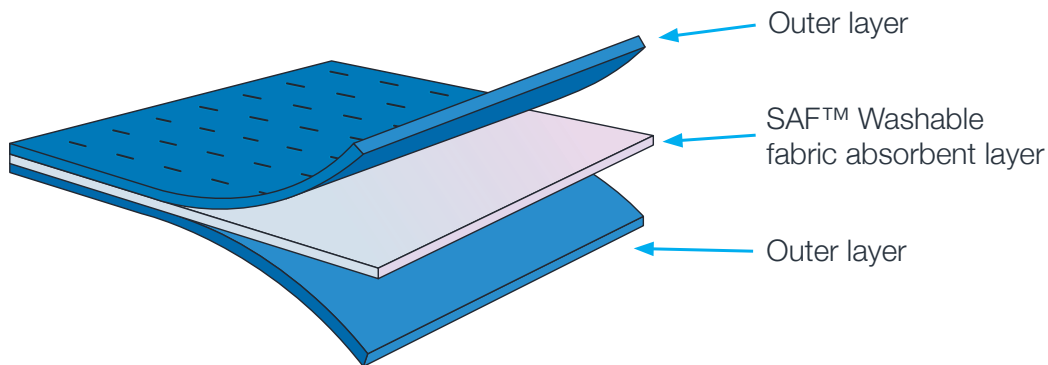
To withstand laundering, the SAF™ Washable fabric must be positioned between two outer layers, thus creating a three-layer fabric. The outer fabrics* can be tailored as required to suit product design and functional requirement, e.g. one layer can be waterproof and the other water permeable.

Once in a final fabric construction, studies have indicated that SAF™ Washable fabrics can withstand at least 40 washes at 60°C. If constructed correctly, end garments/products made using a SAF™ Washable fabric can be tumble dried.

SAF™ Washable fabrics range from 190-450gsm and are typically a blend of SAF™ and other synthetic fibres. Anti-microbial, flame-retardant and anti-odour finishes can also be added during the manufacturing process.

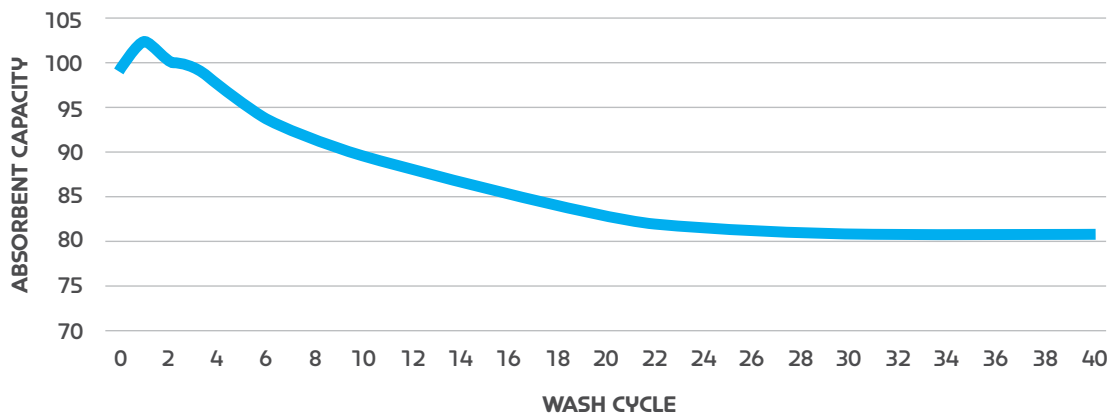
***We only supply the core fabric but can advise on outer fabrics**

Washable Fabric Construction Example





Absorbent Capacity vs Wash Cycle



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