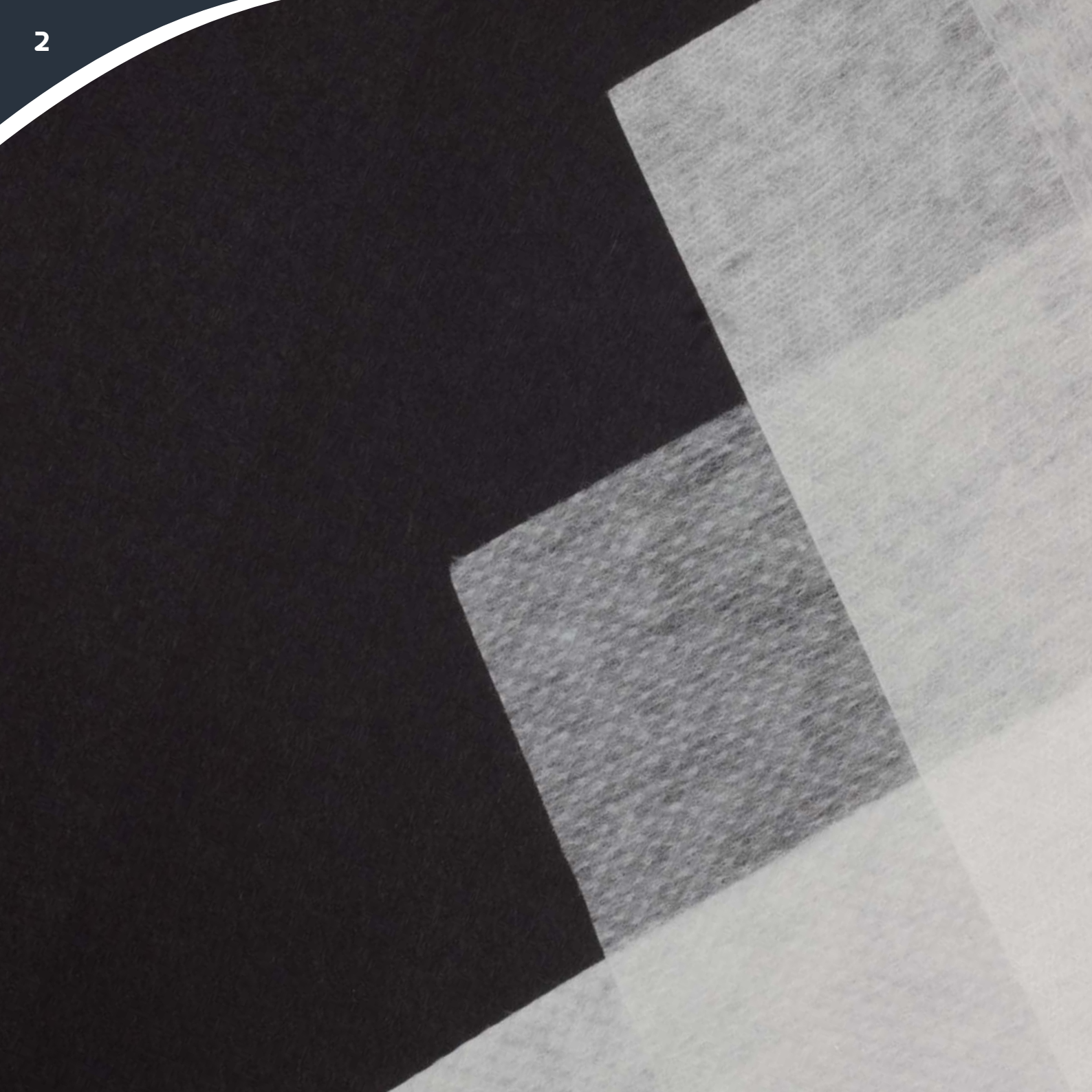
SAF™ | HYGIENE

Comfortable, Breathable and Discreet Absorption

a **Technical Absorbents** product



SAF™

Super Absorbent Fibre

There are many benefits in selecting SAF™ technology and it can add a high performing, yet discreet, dimension to your absorbent hygiene product offering. As a fibre, SAF™ has a very high core to surface area ratio delivering rapid absorption. SAF™ Fibres can absorb water and saline rapidly and effectively absorb blood plasma without blood solids blocking the surface and limiting further absorption.

Available in 6mm and 52mm staple lengths as standard, not only are the fibres consistent in size, they can be incorporated into fabrics with other fibres such as polyester. SAF™ Fibres can be homogeneously distributed in a fabric, which can further improve performance due to less gel blocking of the material. In addition, no adhesive or multiple layering is required to fix the fibres in place.

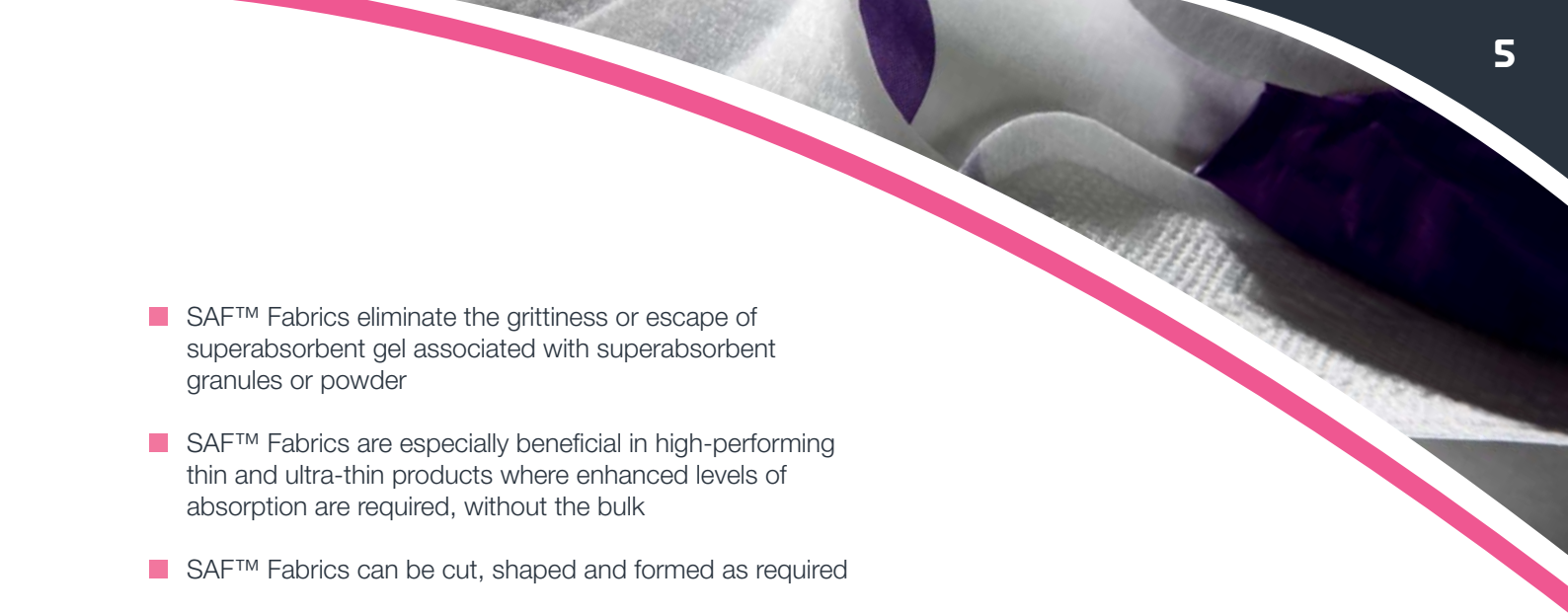
SAF™ Fabrics provide excellent fluid absorption and low re-wet levels, even with minimal dosing. SAF™ Fabrics with lower gsm's can also be designed to effectively lock away liquids in their core and can be incorporated into product designs as different layers to achieve desired results. These are especially beneficial in high-performing thin and ultra-thin products where enhanced levels of absorption are required, without the bulk.

SAF™ Fibres in Hygiene – The Absorbent Component

- SAF™ Fibres can add a high performing yet discreet, dimension to your absorbent product offering
- SAF™ Fibres are suitable for conversion by different routes, e.g. airlaid, hot air-through, carded thermo-bond and yarn spinning
- Reduced dusting and superabsorbent respirable particles during processing and conversion compared to powders and granules
- Absorption rates and absorbency under load can be controlled via selecting the most suitable SAF™ grade, fibre blend and conversion route
- As a fibre, SAF™ has a very high core to surface area ratio (aspect) delivering rapid absorption
- SAF™ Fibres can absorb water and saline rapidly and effectively absorb blood plasma without blood solids blocking the surface and limiting further absorption
- SAF™ Fibres can be homogeneously distributed in the Fabrics, which can further improve performance due to slower gel blocking of the material
- No adhesive or multiple layering is required to fix the SAF™ Fibres in place

SAF™ Hygiene – Fabrics

- SAF™ Fabrics provide excellent fluid absorption and low re-wet levels, even with minimal dosing
- SAF™ Fabrics with lower gsm's can be designed to effectively lock away liquids in their core and can be incorporated into product designs as different layers to achieve desired results



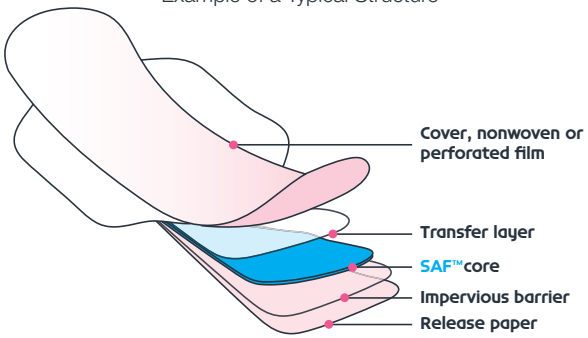
- SAF™ Fabrics eliminate the grittiness or escape of superabsorbent gel associated with superabsorbent granules or powder
- SAF™ Fabrics are especially beneficial in high-performing thin and ultra-thin products where enhanced levels of absorption are required, without the bulk
- SAF™ Fabrics can be cut, shaped and formed as required

Using SAF™ Fabrics in thin and ultra-thin disposable hygiene articles can:

- Reduce end product thickness and weights
- Help achieve comfortable, breathable and discreet product designs

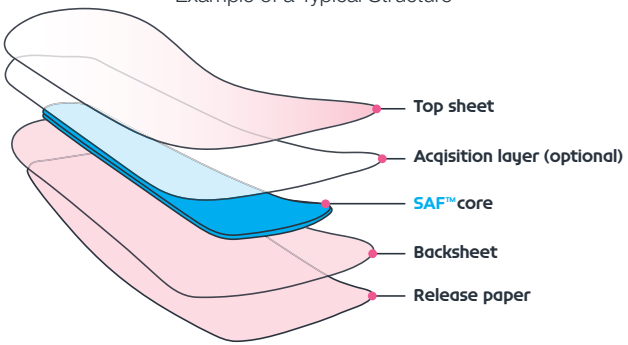
SAF™ **Ultrathin Sanitary Pad**

Example of a Typical Structure



SAF™ **Panty liner**

Example of a Typical Structure



The above diagrams are for illustration purposes only. Contact Technical Absorbents to discuss specific requirements.

SAF™

- SAF™ is a non-irritant and safe to handle
- SAF™ Fibres have a very high core to surface area ratio
- SAF™ Fibres can absorb water and saline rapidly
- SAF™ Fibres look and handle like textile fibres
- SAF™ Fibre density is 1.4g/ml
- SAF™ Fibres can be blended with a range of synthetic and natural fibres
- SAF™ Fabrics result in consistent absorption performance and media integrity throughout
- No adhesives, bonding or multiple layering is required to fix the SAF™ Fibres in place

SAF™ Hygiene Product Range Overview and Technical Data

Code explanation, E.g. 101/6/10H 101 = product ref 6 = staple length (mm) 10 = dtex H=Hygiene

101/6/10H

- Short fibre
- Standard fibre grade
- Provides good balance of gel quality and absorbency properties, particularly under load

111/6/10H

- Short fibre
- Low wet-integrity fibre grade
- Enhanced absorbency performance for solutions with a higher salt content

102/52/10H

- Long fibre
- Standard fibre grade
- Offers a good balance of gel quality and absorbency properties, particularly under load

112/52/10H

- Long fibre
- Low wet-integrity fibre grade
- Higher free swell than type 102/52/10H
- Useful when absorbing water or solutions with a high salt content

Fibre type	Staple length (mm) (Mean Value)	Moisture content (%) (Typical)	PH (Saline extract) (Mean value)	15-min free swell capacity (0.9% saline)	15-min free swell capacity (dm)	0.3 psi absorption under load (0.9% saline)	0.3 psi absorption under load (dm)
6mm							
101/6/10H	**5.8**	**10**	**5.5**	**47**	**>140**	**22**	**>45**
111/6/10H	**6**	**10**	**5.5**	**54**	**>160**	**16**	**>90**
52mm							
102/52/10H	**50**	**14**	**5.5**	**47**	**>120**	**21**	**>45**
112/52/10H	**50**	**14**	**5.5**	**57**	**>160**	**19**	**>95**

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