

AgroSAF™



Technical Absorbents (TAL) is part of Bluestar Fibres Company Limited, a subsidiary company of China National BlueStar (Group) Company Limited, who are wholly-owned by ChemChina. Since inception in 1993, TAL has endeavoured to offer a truly world-class level of innovation, development and supply of super absorbent products, precisely tailored to meet its customers' requirements.



Unsurpassed levels of service and support, coupled with continual investment in its core technology, have helped take the company to the forefront of the super absorbents industry. This has been recognised externally with ISO 9001:2008 Quality Management System, ISO 140001:2004 Environmental Management System and BS OHSAS 18001:2007 Occupational Health and Safety Management System accreditations. It is also a winner of the UK Queen's Award for Export.



Functional water management technology

Local Agent

Technical Absorbents provides extremely high levels of innovation and product development expertise to the agro-textiles market with its Super Absorbent Fibre (SAF™) technology.

The basic functionality of SAF™ is its ability to absorb up to 200 times its own weight in water, and 60 times its own weight in saline, at an extremely fast absorption rate. This key property offers an ideal way of ensuring optimum water conditions while effectively reducing overall water usage through reduction in evaporative loss and water seepage (for ground soil application).

AgroSAF™ is aimed specifically at the agro-textiles market and is the key component for a range of fabric technologies – which can be tailored into a wide range of formats – used by the agriculture and horticulture industries. Such fabrics are designed for the controlled delivery of water and nutrients to different root systems as and when required.

Being fibre-based, AgroSAF™ opens up a number of possibilities for the development of fabrics that can be used over short or long periods of time, even in areas of low-water availability. It can also be dosed directly to the soil.



What is SAF™?

SAF™ is an extremely effective and versatile super absorbent technology. It is available in different grades for various markets and applications, and has been developed to provide high rates of saline and water uptake.

As a fibrous super absorbent, it allows for ease of handling. This gives rise to exceptionally substantive and even distribution profiles within final fabric construction. As such, agro-textiles incorporating this technology offer truly unparalleled levels of consistent water management performance.



Advantages of AgroSAF™-based agro-textiles

- Substantive and compact textile materials design
- Ease of handling and installation
- Wide range of formats suitable for short-and long-term use
- Reduced re-watering periods
- Enhanced establishment times

Applications:

Liner fabrics

These are tailored fabrics which can be cut to shape and used to line the base of potted plants and hanging baskets. They work by absorbing the necessary quantity of water and, in turn, provide a continuous and optimum moisture environment to whichever plant is being grown.

In such situations, overall water usage can be decreased by up to 50%, which significantly reduces the need to re-water plants during their life-span. The addition of a fertiliser to the water also affords an improved control of dosage levels.

Liner fabrics have also been developed for use in vertical gardens, where they offer the ability to hold water in the vertical position while resisting seepage.

Surface fabrics

These fabrics can be positioned around the base of the potted plant (on top of the soil) and offer additional benefits in reducing weed growth and improving the overall thermal regulation of the soil environment. As with liner fabrics, significant reduction in evaporative loss is also achieved.

Ground fabrics

These are long-term durable fabrics developed to be buried below ground level, providing water management in both commercial and domestic situations. Studies have shown up to 30% reductions in water usage per year for large grassed areas (e.g. golf courses). This is particularly advantageous in areas of low rainfall and/or limited availability of irrigation water.

Such fabrics have been designed for ease of installation – typically 15-20 cm below the surface – and do not biodegrade or lose performance over the long-term. Modifications to the fabrics can be made, e.g. incorporating seeds and other growth factors, so that the ideal growing environment is available within a single format to which just water is added.

