



YOUR PARTNER IN TECHNICAL TEXTILES

For Construction & Industrial Materials



WATERPROOFING

ADFORS offers the widest glass-based reinforcement range for roofing applications with:

- Good dimensional stability,
- Excellent fire and mould resistance,
- Puncture resistance,
- High tensile strength.

RELATED PRODUCTS :

- Glass veils
- RECO roofing fabrics
- Glass & Polyester scrim
- TwinRoof, combined textiles



INSULATION

ADFORS has developed glass veils and glass woven facers that:

- Enhance the indoor air quality,
- Improve touch & aspect,
- Resist compression of mineral wool rolls and keep a good appearance when unrolled,
- Improve their mechanical properties: puncture resistance, rigidity, tensile strength,
- Provide excellent fire and mould resistance properties.

RELATED PRODUCTS :

- White, yellow & black glass veils
- Woven glass facers



ACOUSTIC INSULATION

The ADFORS acoustic glass mat range can be easily laminated with bitumen or any other protective foil. It can also be used directly under floating floors (screed or dry gypsum board).

The main benefits of the product range are:

- Very thin (<5 mm) products,
- High, long-lasting acoustic performance,
- High, long-lasting creep resistance.

RELATED PRODUCTS :

- Thick glass mat



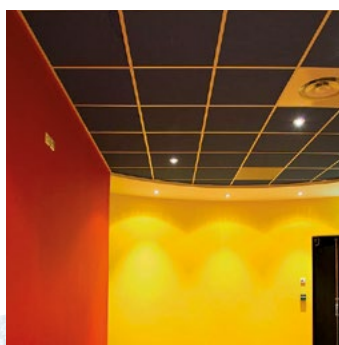
CEILING TILES

ADFORS provides formaldehyde free products for painted, coated and printed facers which offer:

- Acoustic & aesthetic properties,
- Fire & impact resistance,
- Softness for applicators' comfort.

RELATED PRODUCTS :

- Glass veils
- TwinFab®, combined textiles
- Coated veils



FLOOR COVERINGS

ADFORS provides superior reinforcement for resilient floor coverings and carpet tiles with:

- High dimensional stability,
- Good processability,
- Puncture resistance,
- No or low VOC emission.

RELATED PRODUCTS :

- Glass veils
- Laid scrim
- TwinFab®, combined textiles



RIGID BOARDS

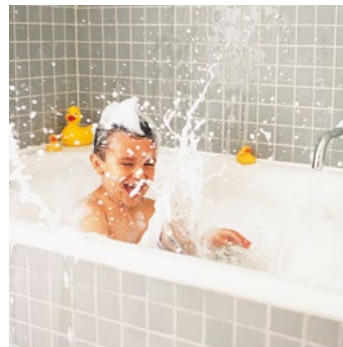
ADFORS provides customized reinforcement solutions for manufactured boards, such as cement, gypsum and foam boards.

Our products offer:

- Mould & alkali-resistance,
- Mechanical strength,
- Fire resistance,
- Moisture resistance.

RELATED PRODUCTS :

- Glass & coated veils
- Laid scrim
- Open woven reinforcement
- TwinFab®, combined textiles



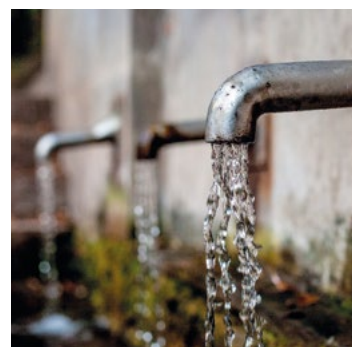
PIPE REINFORCEMENT & PROTECTION

ADFORS supplies reinforcement and surfacing veils and scrims for:

- Inner and outer wrap,
- Steel & FRP pipes.

RELATED PRODUCTS :

- Glass veils in rolls & strips
- Laid scrim

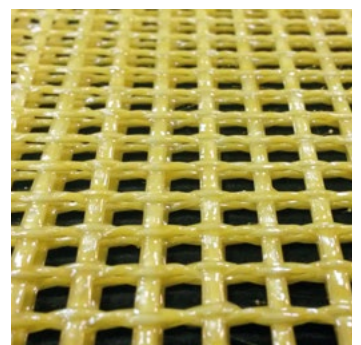
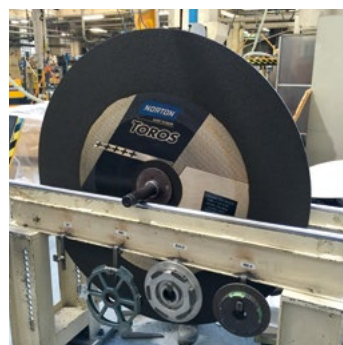


GRINDING WHEELS' REINFORCEMENTS

ADFORS provides reinforcement discs' from diameter 75 to 1850 mm, glass-webs and coatings for any kind of wheel and machinery together with a wide choice of complements and separators. ADFORS products improve wheels' quality in compliance with OSA safety requirements.

RELATED PRODUCTS :

- E glass fabrics from 56 to 1150 gr/m² - uncoated weight



Our activity offers technical fabrics to industrial manufacturers who use it in their process. These fabrics are mostly applied to **reinforce** or **face** their **final product**.

OUR PRODUCT RANGE INCLUDES :

► Non wovens

For lightweight reinforcements & Facings

- Glass veils
- Laid scrims

► Woven Fabrics/Combinated Textiles/Coated Fabrics

For outstanding Strength

- Woven fabrics
- Combinated textiles
- Coated fabrics

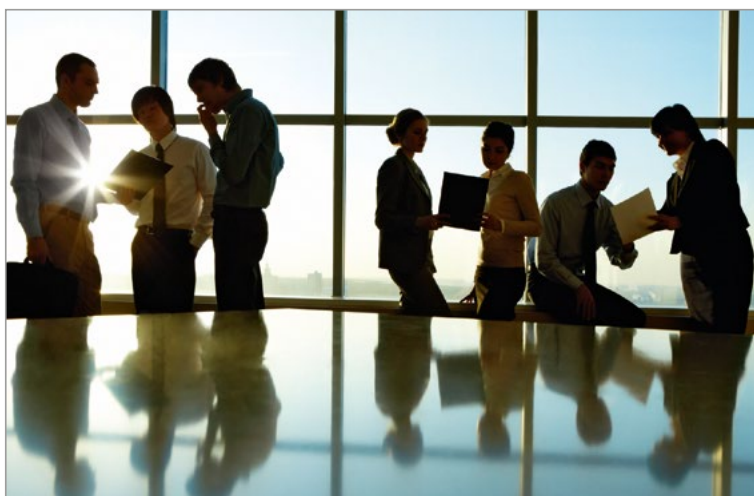
SAINT-GOBAIN ADFORS: A SIGNIFICANT EXPERTISE

By working with Saint-Gobain ADFORS, our customers have access to a wide range of customizable solutions developed using over 50 years of experience in innovative industrial fabrics.

Our teams support our customers from the product development stage to after-sales service to guarantee the development of the best solution for their specific protection and reinforcement challenges.

ADFORS OFFERS:

- Long-term and reliable partnership through a close collaboration and co-development approach
- Customized services and lead time
- Improved quality process



ENVIRONMENTAL PRINCIPLES

ADFORS produces and develops sustainable technical textiles optimizing its economic viability. Saint-Gobain **World Class Manufacturing program** targets the decrease of production losses and reduction of use of energy, water and raw material.

All our ADFORS plants are **ISO 14001 certified** and deploy specific programs to minimize their environmental footprint, such as:

- The recycling of glass waste in our furnaces and set-up of partnership with various industry to ensure our environmental impact control from the beginning to the end.
- The optimization of the water cycle management to reduce the water withdrawal from natural sources.
- The reduction of energy consumption and CO₂ emissions from our processes.



We provide our customers with **Life Cycle Analysis data**, and replace non renewable resources by other raw materials, such as bio-sourced binders. We eliminate harmful substances in our processes and products. We reduce **VOC emissions**, such as formaldehyde in our finished products.



ADFORS INDUSTRIAL FABRICS EUROPE

A Complete Range of Manufacturing Processes

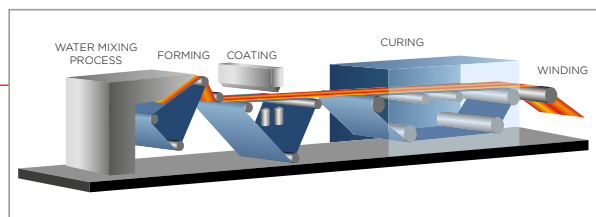
1. NON WOVEN TECHNOLOGIES

Wet laid glass veil process

Wet chopped glass fibres are dispersed in a water based solution. The solution is poured onto a moving wire mesh belt. The damp veil is then passed under a binder applicator where liquid resin binder is applied. The veil then passes through an oven to be dried.

Benefits:

- High quality aspect,
- High thermal stability,
- Rolls from 1 to 4.2 metres width.

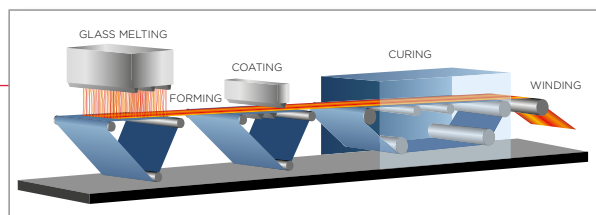


Dry laid glass veil process

The fibres are produced directly from a furnace that is above the conveyor belt where the veil is formed. The second part of the process remains similar to the wet laid in terms of binder application.

Benefits:

- Very flexible glass veils with:
- High softness,
 - Good tear and puncture resistance,
 - Rolls up to 1.3 metre width.



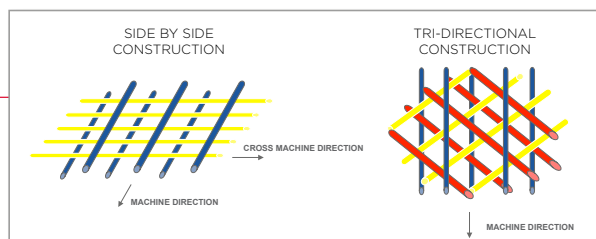
Laid scrim process

Scrim is a reinforcing fabric made from continuous filament yarn in an open mesh construction.

The simplest laid scrim pattern, the yarns from the top and bottom warp (machine direction) lie next to each other with the fill (cross machine) yarns in-between set at a 90° angle.

Benefits:

- Lightweight fabric,
- Many bi- or tri-directional patterns,
- Specialty coatings.

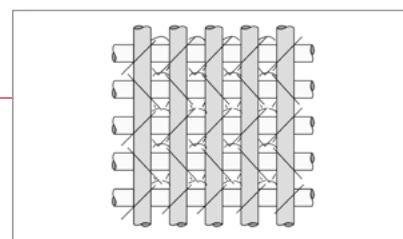


2. KNITTING PROCESS

Three different yarn sources are used to form a fabric. There are warp (machine direction) yarns, weft (cross direction) yarns and a stitch polyester yarn that is used to tie the warp and weft yarns together.

Benefits:

- High pattern regularity,
- Good strength resistance.

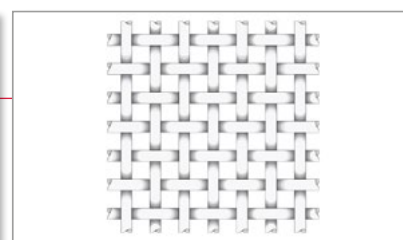
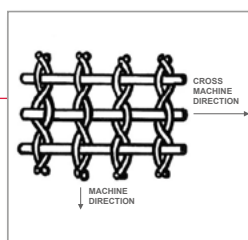


3. WEAVING PROCESS

Warp and weft yarns are woven together on a traditional weaving loom, in various patterns (primarily plain and leno weave).

Benefits:

- High strength fabric,
- High weight fabric.



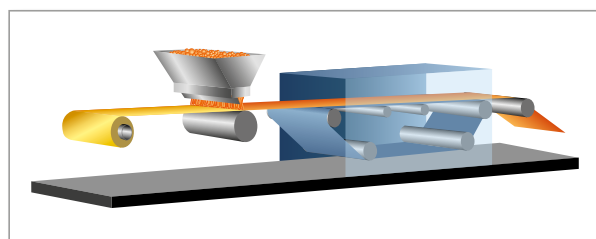
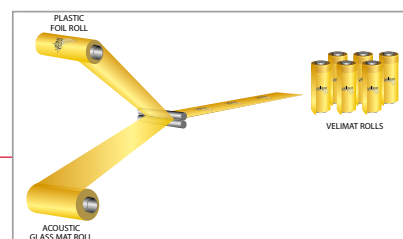
4. LAMINATING & COATING PROCESSES

Two or more layers of different woven or non-woven fabrics are laminated to combine their properties.

A liquid coating or adhesive coating is applied to the technical textile to enhance its performances.

Benefits:

- Multi-functional properties,
- Process combinations possible.

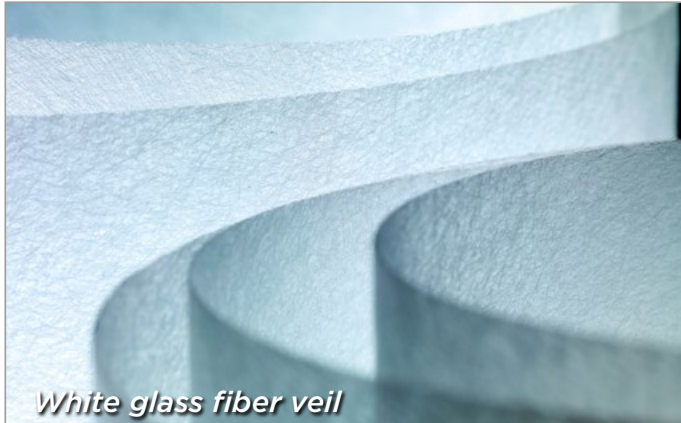


NON WOVENS

For Lightweight Reinforcements & Facings

GLASS VEILS

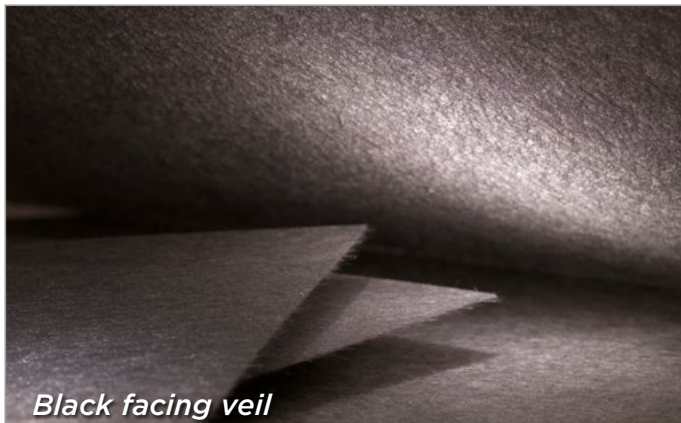
Wet laid & dry laid glass fiber veils - From 25 to 700 gr/m² - In white, yellow or black colour - With or without reinforcement by longitudinal yarns - Binders: acrylics, urea formaldehyde, melamine & bio-sourced binders



White glass fiber veil



Reinforced glass fiber veil



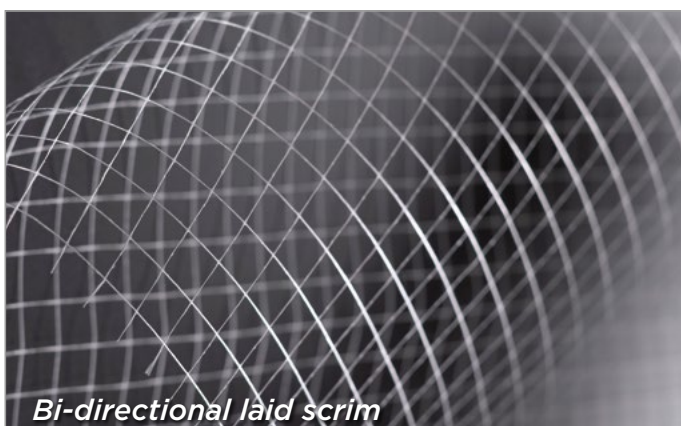
Black facing veil



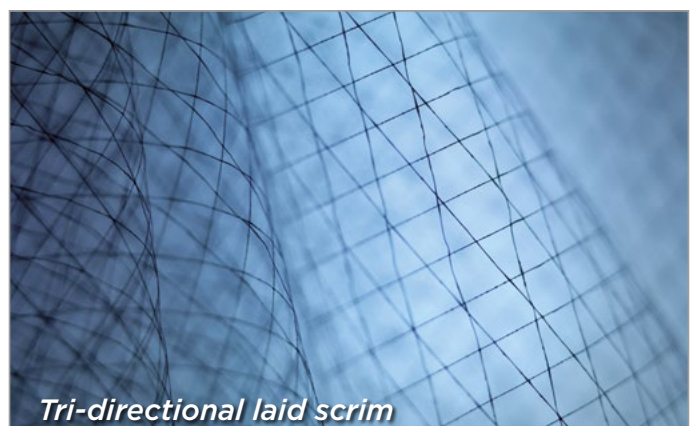
Thick glass mat

LAID SCRIMS

Bi- & tri-directional laid scrims - Glass, polyester & high performance fibers
Up to 5 m width - Binders: polyvinylalcohol, SBR based and others



Bi-directional laid scrim



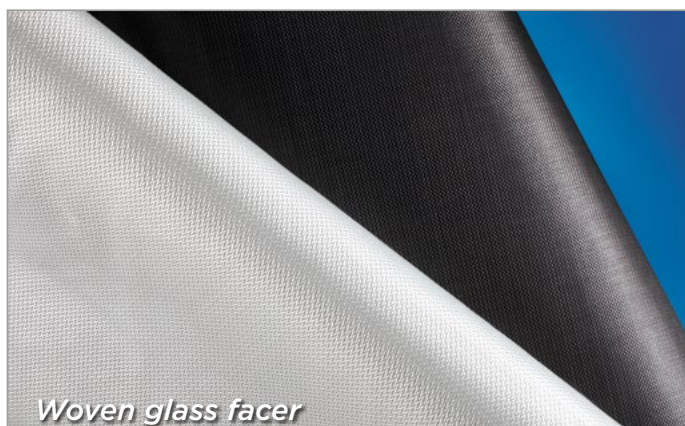
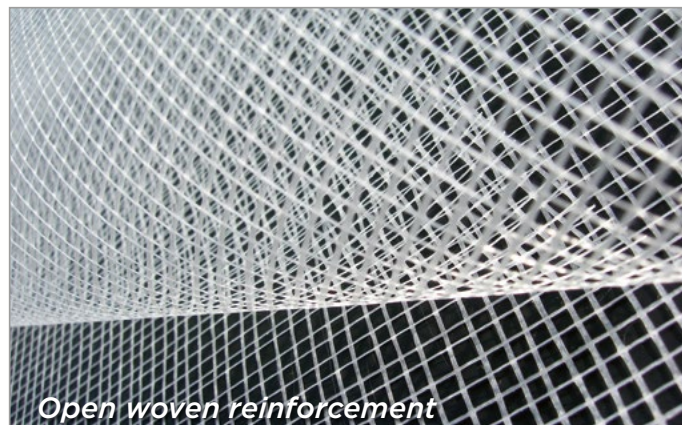
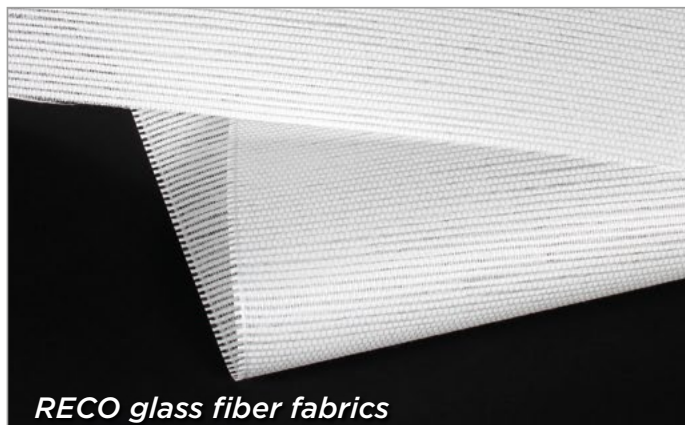
Tri-directional laid scrim

WOVEN FABRICS / COMBINATED TEXTILES / COATED FABRICS

For Outstanding Performances

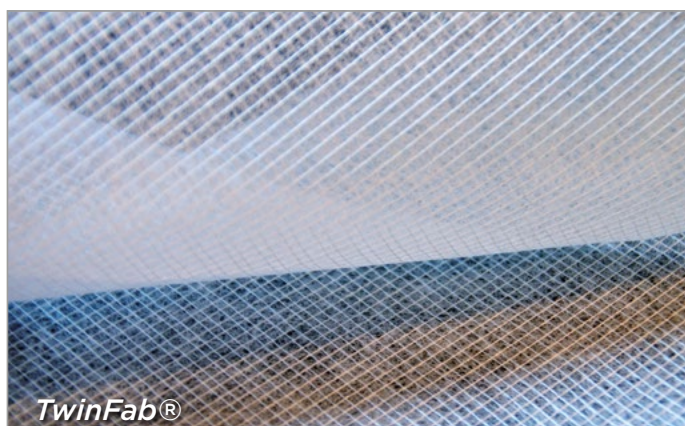
WOVEN FABRICS

Open or closed fabrics - Woven or knitted - From 45 to 1500 gr/m² - Specialty coatings



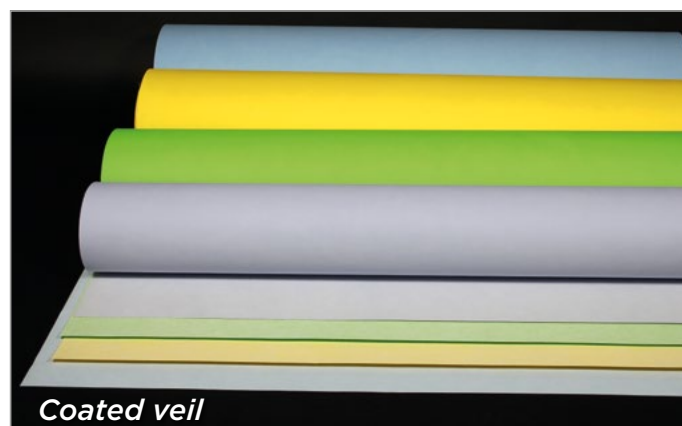
COMBINATED TEXTILES

Combination of non wovens with reinforcing fabrics (scrim, knitted or woven), glass fiber or polyester based.



COATED FABRICS

Heavily coated textile from 100 to 400 gr/m² - Aesthetical white or pigmented Fire & moisture resistant.





SAINT-GOBAIN ADFORS Research&Development

As a leader in innovation, ADFORS is meeting your expectations by developing cutting edge solutions in a timely manner and at competitive prices. ADFORS's R&D teams are based in the Saint-Gobain R&D Centers of Aubervilliers, France and Northboro, USA and locally in each plant.

ADFORS has specific technical know how and patents in:

- Non woven fabric design
- Woven fabric design
- Knitted fabric design
- Coatings
- Adhesives
- Processing

Our application expertise is focused on functional properties:

- Reinforcement and dimensional stability
- Fire resistance
- Thermal properties
- Acoustic properties
- Anti-fungi
- Environmentally friendly and bio-sourced products

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