



FROMM | PACKAGING
SYSTEMS

STARstrap™, STARstrap™-plus
and STARstrap™-ULTRA
Polyester strap



STARstrap™ - polyester strap applications

Stability, shock-resistance and a high seal efficiency are vital to transport security. Tailored to Fromm strapping systems and equipment, **STARstrap™**, **STARstrap™-plus** and **STARstrap™-ULTRA** guarantee optimal protection for your products. Our synergy is your advantage!



Precious metal industry



Strapping of steel plates

Your advantages at a glance:

- No damage or contamination of packaged goods (corrosion-resistant)
- High shock-absorption in the event of excessive transport stress
- Optimal tension even in the event of "shrinkage" of the transported goods
- Up to 50% savings in relation to steel combined with swift recouping of any retrofitting costs
- Simple and safe handling, low risk of injury
- Stronger PET straps meet legal packaging guidelines
- Much less strain on the product's edges - expensive edge protection can often omit.



cotton bales



Aluminium sheets



Timber industry



Brickindustry

STARstrap™ - quality polyester strap

The manufacture of our PET strap is subject to permanent quality control. This involves:

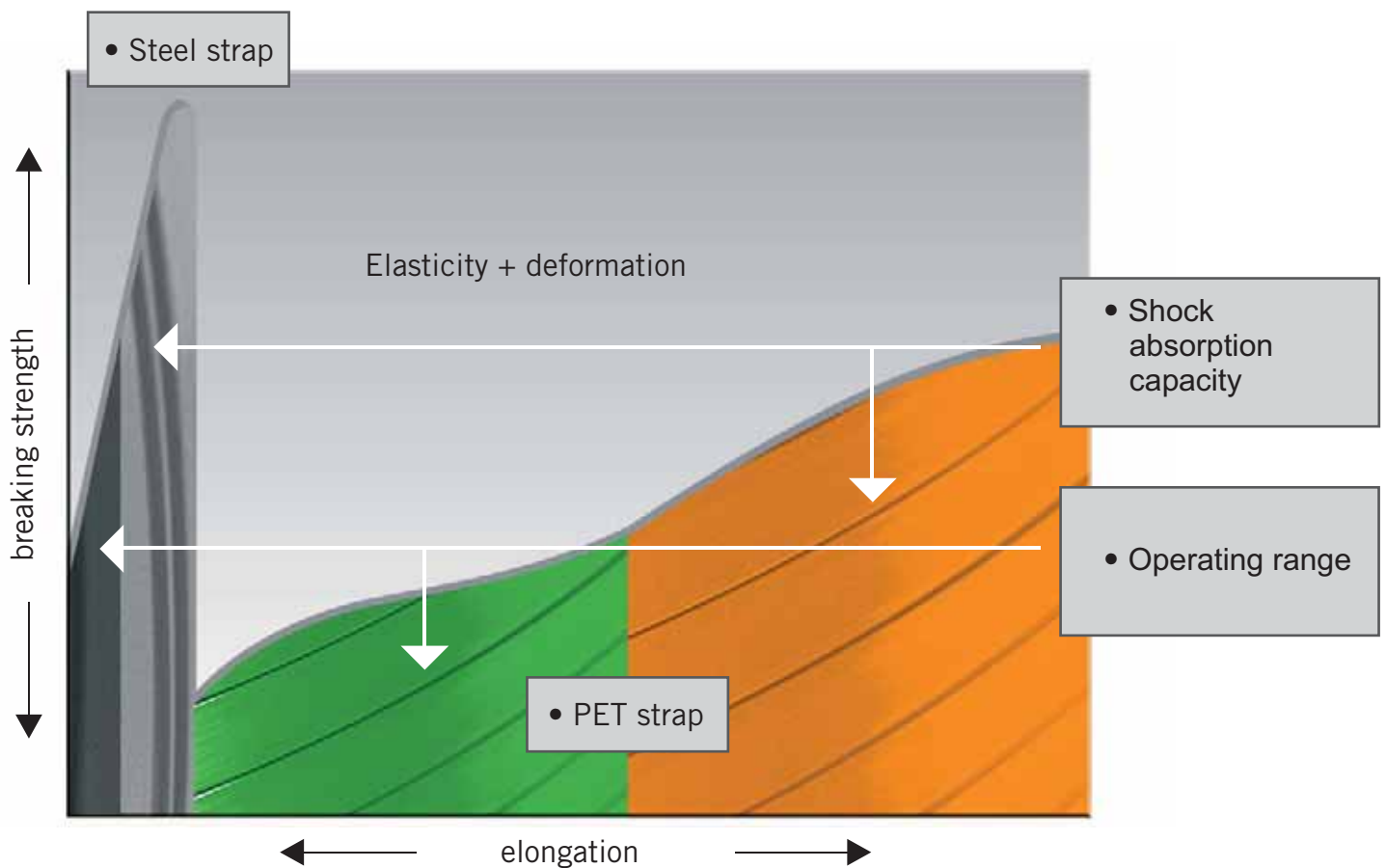
- Raw material checks
- Monitoring specifications during production
- Double-checking of products after Manufacture and before leaving the factory.

Quality control is carried out in accordance with stringent standards and uses automated, state-of-the-art test machinery.



In the Application Center tests are continuously carried out for new products and improved specifications in order to meet rising customer requirements. Comprehensive know-how and state-of-the-art test rigs make for innovative products.

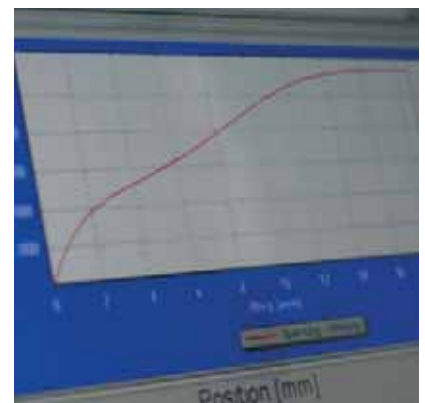
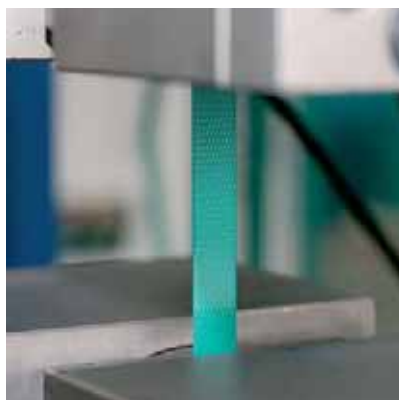
Steel/PET - strength-elongation curve



Because of its lower shock absorption steel strap loses its holding properties when subjected to excessive strain.

Advantages of PET strap:

- Optimal shock absorption for strap tension in operating range
- High shock reserve and resilience during storage and transportation
- Reversion to original tension after subjection to compressive or impact forces (memory effect).



STARstrap™ - polyester strap performance

Depending on the security requirements during transport there are three product groups:

STARstrap™ - This product group is obtainable in widths between 9 mm and 19 mm. It can be used for strapping paper/ cardboard, timber batches, rocks, cans and plastic products.

STARstrap™-plus is distinguished for its very high joining quality and edge stability. This type of strap is thus particularly suited to meet the exacting standards involved in securing products during transportation.

In many cases this strap is used for the strapping of:

- Sharp-edged and heavy packages in the metalworking and construction materials industry
- Highly compressed textile bales
- Heavy bundles in the woodworking industry

STARstrap™-plus is obtainable in widths ranging from 15 mm to 32 mm. It is increasingly used for converting of steel strap.

STARstrap™ and **STARstrap™-plus** are ideal for processing with FROMM strapping machines of the P series and on systems with the FROMM strapping units MH600 and MH610.

STARstrap™- ULTRA is a high tech strap with extremely great tensile strength and seal efficiency. It replaces high-strength steel strap in heavy applications, especially in the metalworking industry.

STARstrap™- ULTRA is obtainable in widths ranging from 19 mm x 1,27 mm to 32 mm x 1,2 mm.

STARstrap™- ULTRA in combination with the latest generation of FROMM tools P330 and P360 meets highest demands of securing your products.



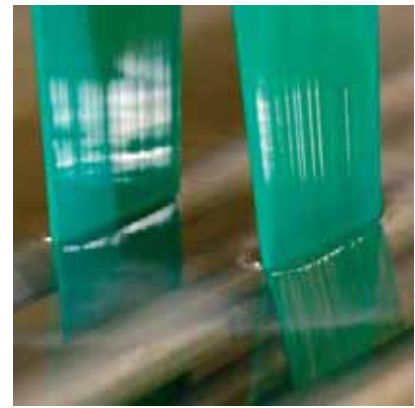


The STARstrap™ - production plant for polyester strap

STARstrap™, STARstrap™-plus and **STARstrap™-ULTRA** are manufactured using the world's most up-to-date techniques. With production facilities in Europe, America and Asia, FROMM is represented in all major markets. Our PET straps are environmental friendly, free of pollution and in compliance with the European Packaging Directive 94/62/EC.



PET Flakes



Water bath



Stretching unit



strap storage

STARstrap™, STARstrap™-plus and **STARstrap™-ULTRA** are made of 100% polyester. The bulk of this raw material is manufactured in the FROMM owned plastics recycling plant Texplast GmbH in Wolfen. All FROMM production facilities have DIN EN ISO 9001 and DIN EN ISO 14001 certification.



DQS-certified according to DIN EN ISO 9001 and DIN EN ISO 14001 (Reg.-Nr. 230135QM/UM)



Winding unit



Automatic packaging



Development centre in Germany



Production centre for machines and equipment in Italy



Production centre for STARstrap™ strapping in Thailand



Production centre for STARstrap™ strapping in Germany



Production centre for STARstrap™ strapping in Chile



Polyester recycling plant in Germany

FROMM Group

The FROMM Group develops and produces a wide variety of systems for unitizing and palletizing goods for transport: strapping machines and systems, pallet stretch wrapping machines, the patented Airpad pillow system, together with all necessary consumables.

Established in 1947, the Swiss family business generates a turnover in excess of 150 million Euros and employs a workforce of around 700 worldwide. 20 subsidiaries in Europe, North and South America, South Africa and Asia, along with a multitude of specialized sales partners throughout the world ensure – in your vicinity – professional advice, prompt customer service and maintenance.

The company pursues a policy of logical vertical integration while upholding traditional values such as proximity to customers, quality consciousness, continuity, independence and environmental awareness, which are the reasons for decades of success.

Development centre

In the FROMM development centre, a long established and experienced team of engineers constantly develops new techniques and products using the very latest 3D CAD systems. Up-to-date test procedures guarantee the high FROMM quality standards.

Production centres for machines and equipment

Production takes place round the clock in the FROMM production centres. Highly qualified teams of specialists manufacture FROMM products satisfying the highest demands of quality on computer-controlled machines. All machines are tested before leaving the factory. The company has ISO 9001 certification.

Production centres for polyester plastic strapping and multilayer blown films

STARstrap™ plastic strapping is produced in the FROMM production cen-

tres exclusively from recycled polyester bottle material on modern state-of-the-art extrusion plant. These bands guarantee the high quality of the strapping performed with FROMM machines and equipment.

All kinds of film types for the Airpad pillow material are produced on blown film extrusion machines. Special film types guarantee a high loading capacity of the individual pillow elements. The plants are certified in accordance with ISO 9001 and ISO 14000.

Polyester recycling plant

In the FROMM recycling plant high grade base material, agglomerates and regranulates for the production of PET strapping, foodstuff films, textiles and drink bottles are produced from used PET bottles. This enables FROMM PET products to satisfy the most rigorous ecological requirements. The plant is certified in accordance with ISO 9001 and ISO 14000.

FROMM stands for development, production, consultancy, sales and service – worldwide and from a single supplier!

Benefit from our expertise!

