

BELTS AND SHEETS FOR **COMPRESSION MOULDING**

RELEASE SOLUTIONS FOR
AUTOMOTIVE COMPOSITES

Partnerships that inspire.
Materials that perform.



versiv

RELEASE SOLUTIONS FOR AUTOMOTIVE COMPOSITES

Compression moulding is the most cost effective option for the production of a range of lightweight, high strength interior automotive parts.

Versiv release solutions are used as processing aids when converting, bonding and shaping materials into composite parts. They are compatible with many press forming processes, where they protect the reusable moulds from the molten substrates and ensure easy release.

Excellent temperature, mechanical strength and abrasion resistance allows precise reproducibility and reduces overall cost.

Versiv non-stick release sheets and belts can be configured for every type of machine, with features such as guidable edges, different types of joints and higher strength and textured options.

ENSURING CONSISTENT PRODUCTION

During the press moulding, conveyor belts transport materials through the oven and cooling process. Because of the extreme and abrasive environment, the belts/sheets can have a short life due to wear, which can cause significant downtime and line stops. Versiv release solutions provide longer life belts/sheets, enabling more cycles and mould lifts. This higher productivity means faster turnarounds and higher production volumes, resulting in a reduced final component cost.

When conveying materials throughout the whole press moulding process, Versiv products retain their shape and excellent non-stick release performance even in temperatures up to 260°C / 500°F. Consistent heat conductivity and mechanical stability allow for stable and reliable processing and release of the composite at each stage of the process.

HIGHER QUALITY FINISHES

Compression moulding makes precision engineering possible with lots of geometric sizes, shapes and new materials for improved aesthetics and comfort in modern cars.

Versiv release solutions ensure that thermoplastic polymeric matrix material goes continuously from the molten state to the moulding stage, thereby reducing scrap, rework, and the need for conventional inspection.

The dimensional stability of Versiv non-stick materials ensures higher quality of the finished composite, even in a high pressure and temperature environment. The smooth surface reduces the risk of imprint, while very low elongation rates minimise the risk of defects.



**VERSIV PTFE
RELEASE SOLUTION**



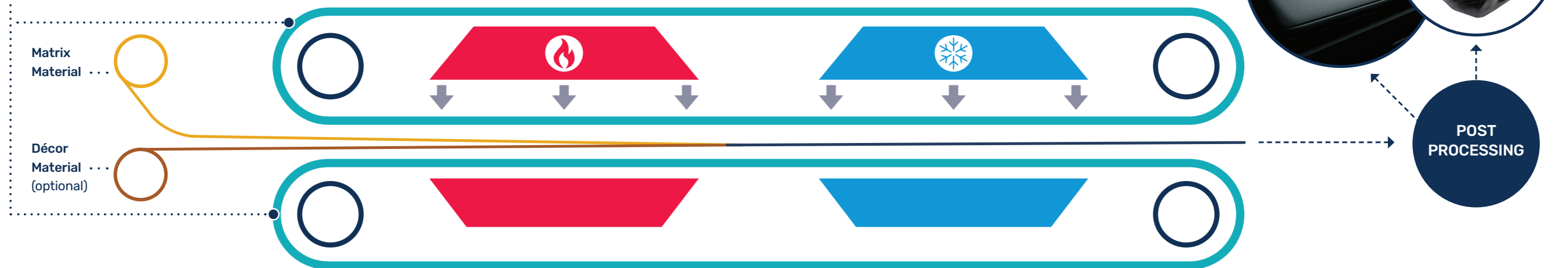
HEATING ZONE

- AT INTERFACE:
UP TO 200°C / 400°F
- APPLYING PRESSURE TO CONSOLIDATE
- Matrix becomes liquid at high temperature and can easily penetrate into micro-cracks



COOLING ZONE

- AT INTERFACE:
10 TO 250°C / 50 TO 480°F
- PRESSURE TO FORM
- NO PRESSURE TO COOL
- Polymer gets solidified and therefore very hard



IMPROVING PRODUCTIVITY

Thanks to their chemical resistance, Versiv release solutions protect the mould from aggressive compounds. This feature makes the mould reusable, prevents expensive repairs and replacement, and minimizes unplanned downtime.

The non-stick and chemically inert PTFE surface ensures that even the most abrasive and sticky compounds is processed.

There is no risk of cross-contamination and no transfer of particles such as colour pigments from one production batch to the other. This minimises the risk of defects or wastage of expensive compounds and reduces the need for cleaning.

Versiv release solutions are also available in the anti-static version for processing reactive substances.

OPTIMAL RELEASE

Pressure and heat are applied to the resins and reinforcement materials in the moulding process, where they bond to form a composite material for further processing.

The curing conditions must be carefully selected and closely monitored to ensure the product attains the desired geometry and shape.

Versiv non-stick, very smooth and superior release surface allows the composite to solidify and be released from the mould continuously.

The easy and consistent release allows for quick mould clean-up. It eliminates the need for release agents or silicone sprays and reduces the time between cycles.

CASE STUDY

4X LONGER LIFE TIME

More Cycles. Smoother Finish. Reduced Maintenance.

By switching to a Versiv hard wearing and abrasion resistant SP010-2 X, our customer produced 4 times more parcel shelves before requiring a belt change. The customer was previously using a standard competitive product that looks similar to our material, but failed to match the consistent long-life of SP010-2 X.

versiv

Partnerships that inspire.
Materials that perform.

Versiv is a recognised expert in high-performance, technology-driven, fluoropolymer-based materials and customised solutions. With over 40 years' experience, our films, fabrics, tapes and multimaterial composites are highly regarded in various B2B industries, with renowned companies among our clients.

Our specialty offering meets the diverse needs of customers seeking high-performance materials, that take on demanding tasks, in providing everything from safe and protective barriers, easy-release surfaces, dielectric insulation and friction control.

We adapt to make even more possible. Our collaborative, co-partnership approach inspires the success of our customers and the evolution of our capabilities, enabling us to deliver top-notch, off-the-shelf products and co-developed solutions.

CONTACT US

+353 65 90 80 170

contact@versivcomposites.com

Versiv Composites Limited
Kilrush, Co. Clare, V15 NW27, Ireland

www.versivcomposites.com

WHAT CAN BE MADE USING VERSIV PRODUCTS?

- Parcel Shelves
- Dashboards
- Car Flooring
- Trunk Trims
- Wheel House Covers
- Head Liners
- Door Panels
- Other parts for NVH (noise, vibration and harshness) control



VERSIV PRODUCTS OF CHOICE:

CF110, CF210, CF310

Standard products for basic requirements

SP010-2 X, CF010-2 X

Hard wearing surface to withstand abrasive conditions

CF214-1 AS X

Hard wearing surface for processes with anti-static requirements

CLF910

Laminated product for superior release and extended durability

