

Compoflex®

Composite Process Material Combination Product – all in one

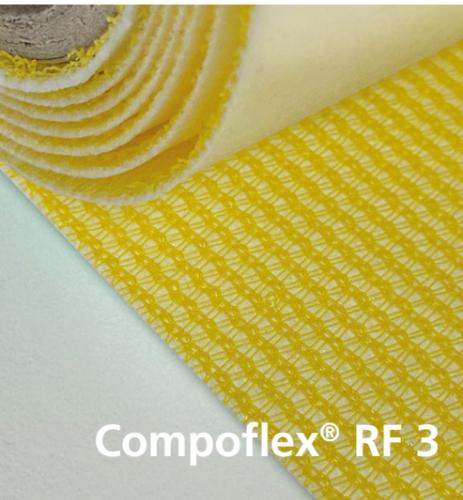
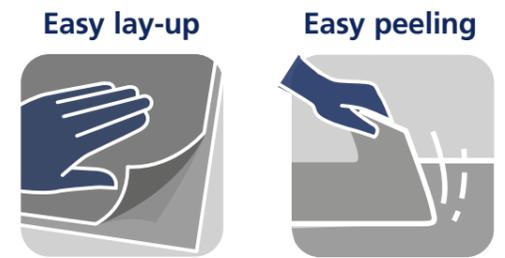


Compoflex® high-performance Combination Products aid to build the longest blades for wind turbines, the most luxurious boats, the fastest cars, trains, planes, and much more.

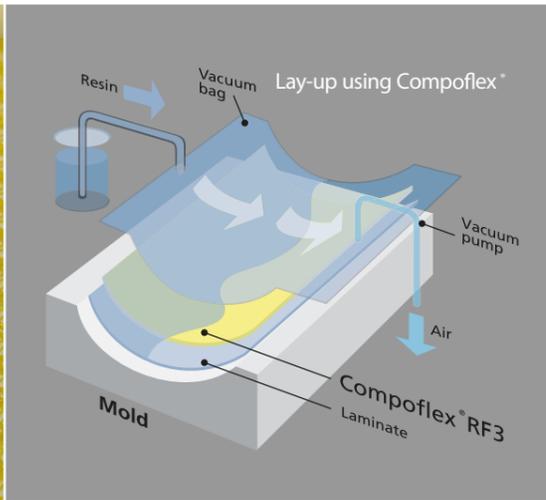
Compoflex® products are breathable micro-porous peeling materials designed to replace up to three consumables – peel ply, release film and breather – saving valuable time and cost. Ideal for all vacuum processes where consumables are used.

Compoflex® saves production time and costs – *all-in-one*

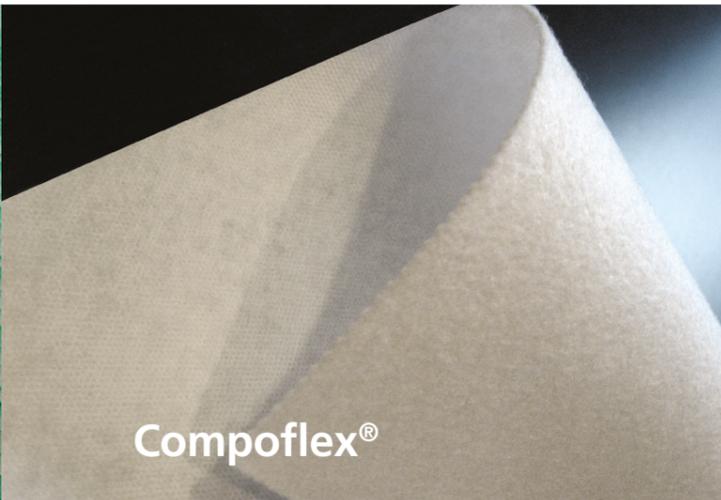
Compoflex® products are breathable microporous peeling materials, designed to replace up to three consumables with a single layer.



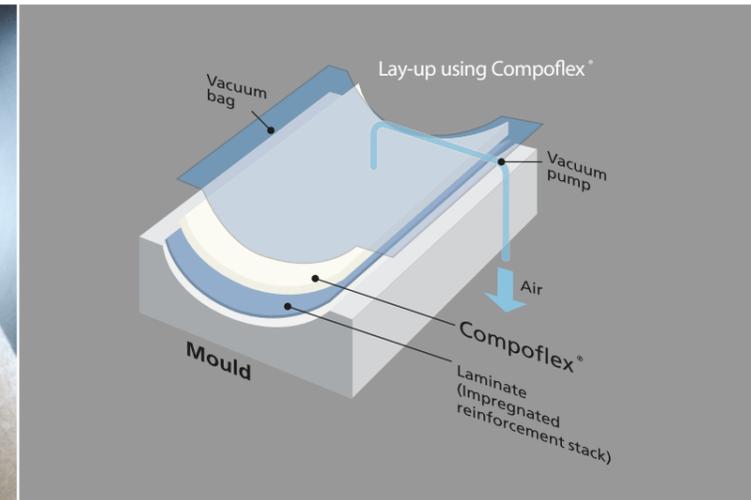
Compoflex® RF 3



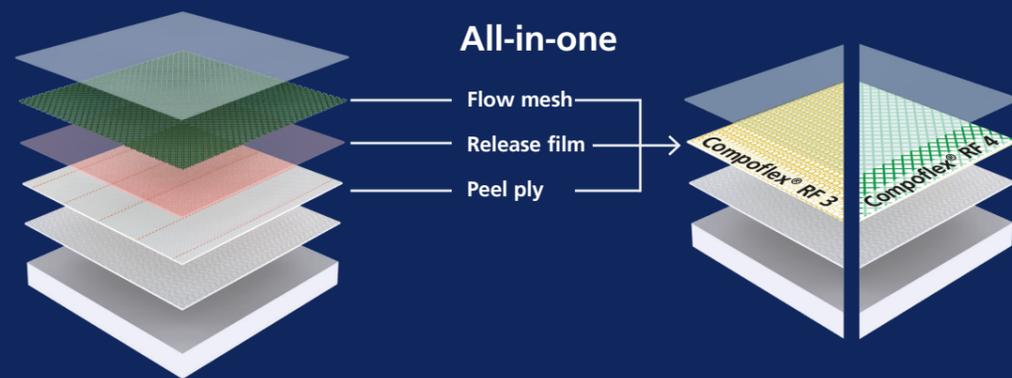
Compoflex® RF 4



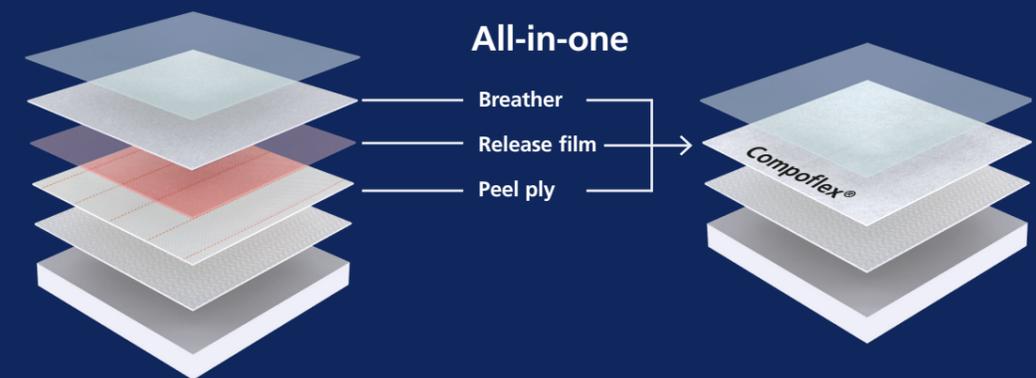
Compoflex®



Infusion



Vacuum bagging and pre-preg



Infusion advantages:

■ **Time and cost savings – less time in the mold**

Compoflex® RF replaces peel ply, release film and flow mesh. Fewer consumables, easy lay-up combined with easy release reduce costs and handling time, simplifying the process considerably and thereby ensuring more output from the individual molds.

■ **Controlled flow front**

For high-density and compact laminates, it is very important to have a controlled flow front. The random microporous perforation style ensures full impregnation of the laminate, thus eliminating dry areas. Furthermore overlapping is possible without jeopardising laminate quality. It is important to note that the controlled flow front may require a change in set-up (more and/or bigger valves depending on laminate size and thickness).

■ **Higher surface quality**

The combination of Compoflex®' unique slip surface and a nonwoven fibre structure aid to lower the risk of milky or champagne bobble surfaces as Compoflex® captures air in the surface during curing.

■ **Superior peeling properties**

The microporous surface and the low surface tension of PP nonwovens ensure that Compoflex® releases at one-fifth of the force needed to peel conventional peel ply. Compoflex® can stay on the laminate for days without jeopardising the easy peeling properties.

■ **Easy peeling minimises resin dust**

Compoflex® peels easily, and hardened resin remains in the liner, reducing the amount of airborne resin dust. Traditional peel ply generates resin dust activity, causing an unhealthy working environment.

Wet lay-up and Pre-preg advantages:

■ **Time and cost savings – less time in the mold**

Compoflex® can replace three consumables – peel ply, release film and breather. Fewer consumables and easy lay-up combined with easy peeling reduce costs and handling time, simplifying the process considerably and thereby ensuring more output from the individual molds.

■ **Uniform bleeding**

Random microporous perforation style enables uniform bleeding and thereby stronger and lighter laminates. Furthermore, overlapping is possible without jeopardising laminate quality.

■ **Superior peeling properties**

The microporous surface and the low surface tension of PP nonwovens ensure that Compoflex® peels at one-fifth of the force needed to peel conventional peel ply.

■ **Easy peeling minimises resin dust**

Compoflex® peels easily, and hardened resin remains in the liner, reducing the amount of airborne resin dust. Traditional peel ply generates resin dust activity, causing an unhealthy working environment.

Compoflex®

Easy lay-up and superior peeling and bonding properties*

Product	Material type	Weight	Release coating	Colour	Process	Function
Compoflex® 150	PP	150 gsm	None/easy release	White	Infusion & Pre-preg Wet lay-up	Release fabric Release film
Compoflex® SB 150	PP	150 gsm	None/easy release	White	Infusion & Pre-preg Wet lay-up	Release fabric Release film Surface for Secondary bonding
Compoflex® RF 3	PP/HDPE	335 gsm	None/easy release	White/Yellow	Infusion	Release fabric Release film High speed flow mesh
Compoflex® SB RF 3	PP/HDPE	335 gsm	None/easy release	White/Yellow	Infusion	Release fabric Release film High speed flow mesh Surface for Secondary bonding
Compoflex® RF 4	PP	270 gsm	None/easy release	White/Green	Infusion	Release fabric Release film High speed flow mesh
Compoflex® 250	PP	250 gsm	None/easy release	White	Pre-preg Wet lay-up	Release fabric Release film 150g breather (5 oz)
Compoflex® SB 250	PP	250 gsm	None/easy release	White	Pre-preg Wet lay-up	Release fabric Release film 150g breather (5 oz) Surface for Secondary bonding
Compoflex® 400	PP	400 gsm	None/easy release	White	Pre-preg Wet lay-up	Release fabric Release film 300g breather (10 oz)
Compoflex® SB 400	PP	400 gsm	None/easy release	White	Pre-preg Wet lay-up	Release fabric Release film 300g breather (10 oz) Surface for Secondary bonding

* Bonding properties depends on resin and adhesive
Compoflex® SB surface approx. 50% more bonding area due to high rounded structures.

General info

Composition: For CF 150, CF SB 150 and CF RF 4: 100% PP (nonwoven).

For CF RF 3 and CF SB RF 3: 50% PP (nonwoven) / 50% HDPE (grid).

Resin: Works well with polyester, vinylester, epoxy, phenolic and other types of resin, but testing is always recommended.

Surface preparation / Secondary bonding: Compoflex® SB products may reduce or eliminate the need for sanding or abrading. Compoflex® SB generates approx. 50% more surface area for bonding compared to standard Compoflex® and approx. 30% more than traditional peel ply. Best results are achieved with epoxy resin. Some resin types made from polyester or vinylester do not leave a bondable surface due to additives that need to be removed by sanding. Please consult your resin supplier for information about the resin additives. Testing on small parts is always recommended. Secondary bonding lab test results can be provided upon request.

Working temperature

Recommended max. working temperature is 144°C (293°F). The melting point for polypropylene is 165°C (329°F). However, it is possible to use Compoflex® at 200°C (392°F) due to the fact that Compoflex® performs before the temperature exceeds the melting point. After cooling, the material becomes stable again, and peeling is just as easy as normal. We recommend conducting a test on a small part first.

Certified

Fibertex Nonwovens is certified according to EN ISO 9001 and ISO 14001, and Compoflex® is manufactured according to current European technical and environmental regulations.

Contact us

For specific input on how Compoflex® will optimise your production time and costs, please contact your local distributor or Fibertex Nonwovens.



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