



**CORE
MATERIALS**

AIREX T92[®] SealX
Save resin to the Max!

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AIREX® T92 SealX

Save resin to the Max!

Zero CK - flexibility without scrim!

AIREX® T92 SealX — highest avoidance of auxiliary materials and total cost control

Sandwich core materials require resin or any other adhesive to optimally bond to the skin material. The core-skin adhesion is based on chemical as well as mechanical bonding - the latter resulting from resin anchoring in the core material's rough surface structure.

While a sufficient core-skin adhesion requires a certain amount of resin, any additional resin uptake on the core material's surface represents both extra cost and weight – especially in resin flow methods (e.g. infusion).

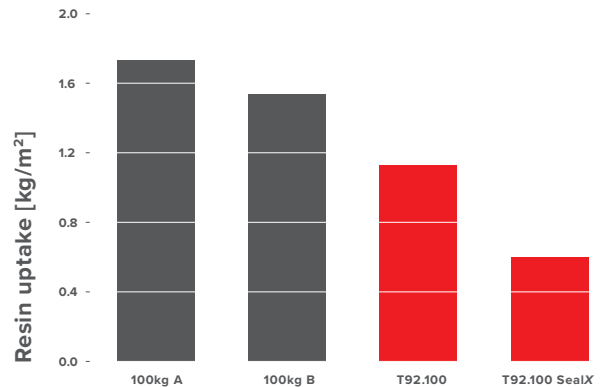
Today's **AIREX® T92** already features a best-in-class resin uptake. The new **AIREX® T92 SealX** technology constitutes a breakthrough innovation in further reducing the resin uptake by up to 50%. The new **AIREX® T92 SealX** hence creates a completely new class of PET cores which translates into substantial reduction in resin weight and cost.

In many applications such as marine, industrial and wind turbine blades, resin infusion processes are increasingly used for sandwich production. Resin consumption on the core material's surface has thus become a focal point. **AIREX® T92 SealX** is specifically optimized to respond to these customers' requirements.

Considerable savings

The following diagram illustrates the resin uptake of different PET core materials in the 100 kg/m³ density range. With a mere 0.6 kg/m² the new **AIREX® T92 SealX** clearly outpaces any available PET core material and sets totally new standards.

Resin uptake of PET core materials (100 kg/m³)



While **AIREX® T92** already features a best-in-class resin uptake, the new **AIREX® T92 SealX** sets a whole new standard.

Per square meter of sandwich structure, **AIREX® T92 SealX** can reduce the resin uptake by around 1.0 kg. Over the entire structure this allows to substantially reduce a product's weight and cost - a rare combination! The application example (see table aside) illustrates these savings for a larger application.

AIREX® T92 SealX at a glance:

- / Resin uptake reduced by up to 50%
- / Substantial reduction in weight and cost
- / High core-skin adhesion, unchanged by new **SealX** technology
- / **CK Zero**: higher flexibility even without a scrim
- / Designed for resin flow processes (e.g. infusion)

Photographic documentation of SealX technology

The following two graphics impressively illustrate the surface sealing effect of the new SealX technology.

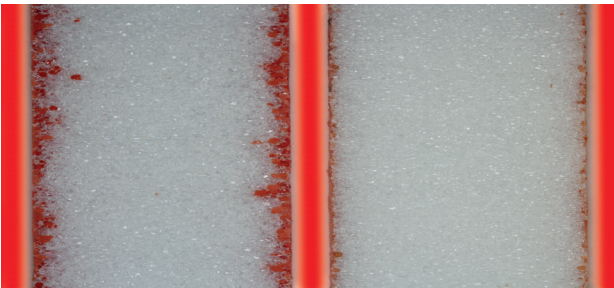


Photo of infused PET core materials with red-colored resin and removed skins. Commercially available PET foam 100 kg (left) vs. AIREX® T92 SealX (right).

Proven and tested

New AIREX® T92 SealX has been extensively tested and proven. T92 SealX is used in wind rotor blades, boats, bridge construction, automotive application to name just a few. In all applications SealX proves its weight and cost saving potential and its easy and safe use. With the dramatic reduction of resin uptake, the core-skin adhesion was a prime focus. Despite the reduced resin uptake, AIREX® T92 SealX features the same excellent skin adhesion as any conventional PET core material. Furthermore, all mechanical properties of the core – including fatigue resistance – are unaffected by the new SealX technology thus assuring a smooth transition for customers wishing to profit from this new product.

Application example:

Wind turbine blade or yacht: Infused sandwich area of 100 m²	
Resin uptake with current PET	160 kg
Resin uptake with AIREX® T92 SealX	60 kg
Net resin economy in weight (+ cost)	100 kg

Innovation is our core business

As a leader in lightweight sandwich solutions, 3A Composites Core Materials is constantly striving to anticipate customers' future requirements and to exceed their expectations. And we believe we have – once again – achieved just this with the development of our new AIREX® CK Zero technology that allows highest sheet flexibility without any scrim needed!



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