

FOR IMMEDIATE RELEASE

## Worlds Lightest High-Performance Touring Ski

**Borås, Sweden, 26<sup>th</sup> of January 2012**

Sweden based Ridea Skis have recently released their new high-performance ski models built with TeXtreme® Spread Tow Reinforcements. The newly developed touring skis are the lightest high-performance skis in the world.

Ridea Skis, part of the R-Idea group, have benefitted from R-Idea's patented high fiber volume fraction manufacturing process that enables maximum utilization of the TeXtreme® reinforcement's physical properties. The resulting composite product benefits from superior strength to weight properties, improved laminar strength, excellent adhesion, and enhanced thermal and electrical conductivity.

Touring skis are made for ski mountaineering, i.e., to ski or climb uphill and then ski downhill. When moving uphill it is desirable to have the lightest possible skis, and when skiing downhill it is desirable to have the best possible handling characteristics.

Ridea Skis early on identified some issues with existing touring skis, such as, weak torsion, non-responsive flex, insufficient fastening of bindings, downsized to reduce weight, and low tensile strength.

To overcome these issues the main challenges for Ridea Skis was to maintain the mechanical properties of the carbon fiber wood core based skis while reducing the weight by more than 50%, ensuring safe fastening of bindings for various fastening patterns and to maintain tensile strength.

To find the optimal composite reinforcement Ridea Skis turned to Oxeon and started to evaluate their TeXtreme® Spread Tow Reinforcements. After testing different TeXtreme® variants of carbon, aramid and hybrids of the two they found the optimal reinforcement solution for the skis.

The skis are reinforced with TeXtreme® carbon UD tapes braided in 45 degree orientation for extreme torsional stiffness. The fabric of choice is a hybrid combining a high modulus HS40-fiber in the width direction of the ski, with an aramid fiber in length direction, to enable the skis' hybrid wood/foam core to withstand the compression forces.

Tobias Björnhov, Founder and Manager at Ridea Skis, says: "The combination of R-Idea's patented composite manufacturing process and the TeXtreme® reinforcements used give us possibilities to significantly reduce weight and still meet the stiffness requirements that has previously not been possible to obtain from the use of any other carbon reinforcement. This is a result of the extremely high fiber volume fraction that is achievable through the process combined with the use of TeXtreme®."

The construction that finally provided the solution included features such as: TeXtreme® carbon spread tow tape filament wound braiding, DIAB H-foam/wood/aluminum hybrid core, pre-molded carbon/aramid spread tow fabric, large size steel edges for durability.

The results speak for themselves and the produced skis are truly high-performance and can be summarized as:

- Weight reduction of over 50% resulting in the world's lightest freeride touring ski (Based on weight per surface area. The new weight is 1100g, compared to 2300g)
- Maintained extreme torsional stiffness, smooth and ultra-reactive flex
- Sufficient tensile properties
- Safe fastening of bindings

FOR IMMEDIATE RELEASE

## **About Ridea Skis**

Ridea Skis produces carbon fiber skis with extreme torsional stiffness combined with a smooth yet ultra-reactive flex. The torsional rigidity promotes better edge grip, stabilizes the ski, and forces the ski to bend correctly through the full turn even if the flex is soft. The smooth flex can be varied from very soft to extremely stiff. A soft flex is less demanding on the legs and a stiff flex is for professional racers. Ridea Skis current ski model range includes the following segments; piste, all mountain, freeride early rise, freeride rocker, and touring skis.

## **About Oxeon**

Founded 2003 in Sweden, Oxeon has quickly established itself as the market leader in Spread Tow Reinforcements. Use of these spread tow carbon reinforcements increases the mechanical performance of composite material products and reduces the weight. Utilization of Oxeon's TeXtreme® Spread Tow Fabrics and TeXtreme® Spread Tow Tapes by manufacturers of advanced aerospace, automotive, industrial and sports products in applications that have critical material performance requirements has affirmed the significance of Oxeon's ultra light materials.

For press inquiries, please contact:

Christian Borg  
Brand & Communications Manager  
Oxeon  
Tel: +46 70 248 18 21  
E-mail: [christian.borg@oxeon.se](mailto:christian.borg@oxeon.se)

For press inquiries, please contact:

Tobias Björnhov  
Founder & Manager  
R-Idea  
Tel: +46 73 535 26 50  
E-mail: [tobias@rideaskis.com](mailto:tobias@rideaskis.com)