

APPENDIX B

Sustainable and Environmental Considerations Regarding the Production



2019 FORMULA 177 Carbon Reflex

CARBON FOOTPRINT

Each year Starboard will calculate and disclose our Carbon Footprint. The report is made public in an effort to be completely transparent about our emissions and our role as a polluter.

The report goes through the calculations of Starboard's CO2 emissions and is an investigation into the life cycle analysis (LCA) of our different products. All calculations have been completed by the Starboard Blue team and verified by Carbon FootprintTM. This third-party verification has certified Starboard under the Carbon Footprint Standard.



In the graphic above you can see, the carbon emissions from the LCA (Cradle to gate) of the 2019 Formula 177 Carbon Reflex, windsurf board – breaking it down by energy consumption, raw material, waste, and packaging.

While the energy and packaging use in each board are more or less the same for all boards, the obvious difference will come down to what material goes into the board.

The product design team is making huge progress in lowering the environmental impact of our boards by introducing eco-friendlier materials into production and finding better ways to shape our boards. This is lowering our carbon emissions – as well as





decreasing our dependence on virgin materials, from 2017 to 2018 the windsurfing boards emissions was decrease by 6.2%.

PLASTIC DISCLOSURE PROJECT

In the past couple of years, we have chosen to work towards being part of the solution instead of part of the problem. That's why we have joined Ocean Recovery Alliance in the Plastic Disclosure Project.

By calculating, reporting, and disclosing our plastic usage, we will increase our transparency regarding our production, use and handling of plastic and plastic waste. Every year we calculate the use of plastics of every variety in our boards, accessories, apparel, packaging, and operations in an effort to quantify the plastic diversion associated with the changes we made in our lines, and identify areas for improvement in the future.



In the graphic above you can see the plastic footprint of the 2019 Formula 177 Carbon Reflex, windsurf board – breaking it down by the different plastic types that the board contain.

The calculation is based on the weight of the different types of plastic used in this board.

Throughout this process, we came to terms with just how much we rely on plastic for our products and gave us renewed drive and commitment to addressing plastics in the circular economy in the future. While it's still a challenge to avoid all plastic in our





windsurfing boards we have started using bio and recycled materials, such us 35% biobased epoxy resin and 50% recycled EVA for our pads.

ECO-INNOVATIONS:

Bioresin

Starboard's ditched the usual chemical resin in favor of a bio-based alternative with 35% of its molecular structure originating from plants. The Formula 177 – Carbon Reflex uses GreenPoxy33 resin from Sicomin. This plant-based, low VOC epoxy resin maintains superior performance with lower impact on the environment. This change contributes in a 20.7% CO_2 reduction.





Pigmented resin

In order to keep reducing the impact of our boards we are now using more impregnated paint pigment, which means that less paint is sprayed to color the boards. All other technologies have reduced paint consumption by 33%. This not only releases fewer toxins into the environment, but also reduces the overall weight of the board and leads to fewer paint chips and scratches!



! 26.9% CO₂ reduction.







Recycled EVA pads

The Formula 177 is using EVA pads made from 50% post-industrial recycled EVA. Recycled EVA has a higher UV resistance in some colors than the virgin EVA, so the pads stay the same color for longer. By using this recycled EVA you get a 9.5% CO₂ reduction compared with using virgin EVA.







Packaging

In 2017 we decided to get rid of all the bubbles plastic in our packaging and start relying more in cardboard. Therefore, the only unavoidable plastic we use to pack our boards is a thin dust bag made out of 100% recycled plastic, the rest is all cardboard. The CO_2 emission associated to the packaging is 4.9 kg CO2.



Bottle to Bag

Starboard's board bags are made using Waste2Wear upcycled PET material from 100% recycled waterbottles. These ultra-strong board bags have half the carbon footprint of a normal board bag that uses virgin polyester.



The board bag for our Formula 177 board will utilize an average of 72 plastic bottles per board bag.







Each of our boards has its perfect fit board bag, and as we mentioned, we have calculated the carbon and plastic footprint for all our products:



RE-COVER TRAVEL FORMULA BOARD BAG

OFFSETING OUR IMPACT





Starboard is taking responsibility on its role as industrial producer and offsetting the impact of all its activities. That is why we are planting mangroves to offset the carbon emissions and pioneering the world's first Plastic Offset Program.

Under these initiatives we launched the campaign:

FOR EVERY BOARD SOLD:

CARBON POSITIVE – THOR HEYERDAHL CLIMATE PARK

Starboard is planting their mangroves to offset all carbon emissions at Thor Heyerdahl Climate Park in Myanmar.



With over 500.000 mangroves already planted Starboard has been offsetting the last year emissions for their products and activities as a company.

One mangrove will sequester about 1 tonne (1000Kg) of carbon over its 20-year lifetime, the average Starboard board has a carbon footprint of about 100kg CO₂, meaning that over its lifetime, the mangrove planted for your board will reach carbon net positivity about ten times over!

Thor Heyerdahl Climate Park was the first mangrove restoration project of Worldview International Foundation (WIF) in Myanmar and it was started in 2016. Starboard has been a big supporter of the project since the beginnings and we will keep supporting





the project to help them achieve the target of planting 17 million trees by 2020.

PLASTIC OFFSET PROGRAM - POP

Starboard created the world's first plastic offset program that penalizes the use of plastic and funds beach and water clean-ups.



How it works:

- After calculating our plastic footprint, Starboard took the leap to "price in" its plastic use by assigning a financial value to the plastic used in production according to three different factors: duration of use, toxicity, and creation of waste. By accounting for these factors with an offset price, the Plastic Offset Program acknowledges the dynamic nature of the problems caused by plastics and further clarifies – and quantifies – the investment necessary to mitigate the impact of plastic used.
- Based on this internal tax, Starboard every year creates a fund to be used to directly incentivize the collection of trash from nature through our pilot program in Pattaya, Thailand.
- Following our model year from June 2018 to May 2019 Starboard's goal was to collect 43000 kg of plastic out of the beach and ocean, which was reached and exceeded. The target for June 2019 to May 2020 is 50000kg.
- The program has been design not only to incentivize the collection of plastic if not of all kinds of trash that will be later sorted and recycled or disposed in the right place.





The POP scheme also encourages companies like Starboard to rethink and reinvent how they use plastic in an effort to reduce the external cost of the plastics they use. Eliminating plastics from production, or switching to less harmful varieties (and thus with lower offset prices) will lead to a reduced investment in the Plastic Offset Program, incentivizing companies to reengineer and reduce their plastic consumption habits.

