

**Starboard Co LTD**  
**Plastic Disclosure Project**  
**Environmental Responsibility at Starboard**

At Starboard we pay close attention to the decisions we make. Since 1994 innovation and quality have been the driving force behind our products. Now we're applying the same work ethic to help reduce Starboard's impact on the planet. We believe that board sports are the perfect vehicle to showcase new environmental strategies and we have chosen to turn negatives to positives. At Starboard we calculate, report, and disclose our plastic usage, and are continuously increasing our transparency regarding our production, use and handling of plastic and plastic waste. We then share our challenges and solutions here so we together can make a difference.

**Our Mission**

**Our Mission** is to not only be the best *in* the world but also the best *for* the world.

We have calculated our plastic footprint for fiscal year 2019. Calculating the use of plastics every Starboard Product, including: boards, accessories, apparel and all packaging. This allows us to compare our use of plastics between 2018 and 2019 regardless of any differences in the number of products sold.

Starboard contributes to the plastic industry, but we are finding ways to reduce our negative impact and use our business as a force for positive change. We are working to become part of the solution by offsetting our plastic footprint. We initiated our own Plastic Offset program (POP) and its funded by an internal tax on our plastic usage.

Perhaps the first of its kind globally?

The POP program encourages us to rethink and reinvent how we use plastic and to further reduce plastic consumption. Eliminating plastics from production, or switching to less harmful varieties and recycled sources (and thus with lower offset prices) has incentivised our team to innovate and reduce our plastic consumption habits. The annual global average ocean plastic pollution per person is 1.1 kg and we collect 1.1 kg Beach Ocean plastic for each of our boards through the POP initiative.

For more information about Starboard's eco-initiatives, including our full carbon footprint, go to [star-board.blue](https://www.facebook.com/groups/starboardbluelife/) or join our community at <https://www.facebook.com/groups/starboardbluelife/>

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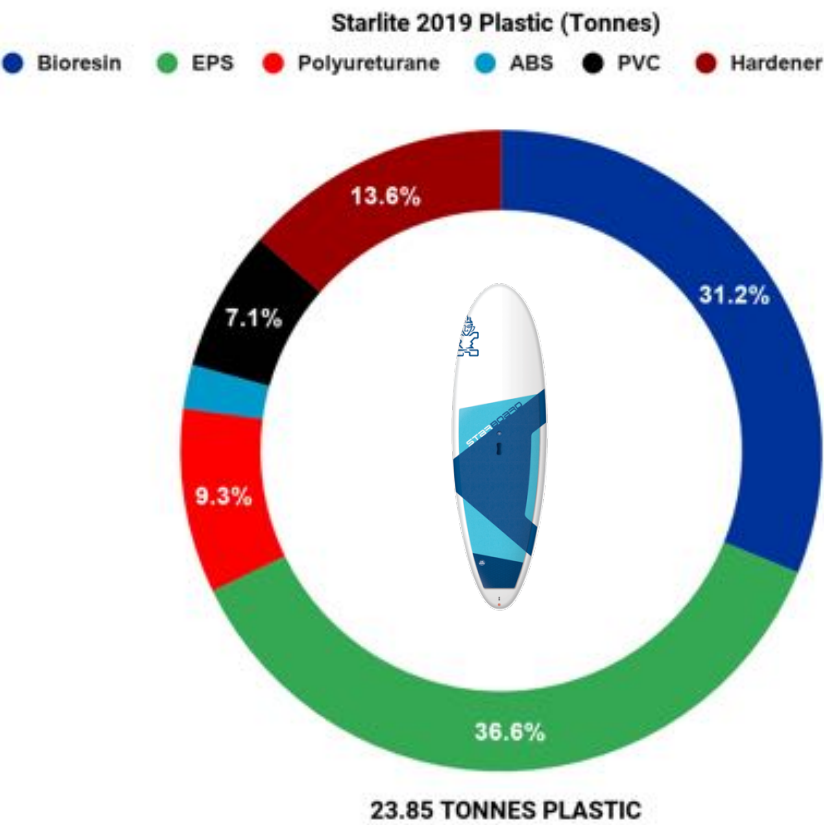
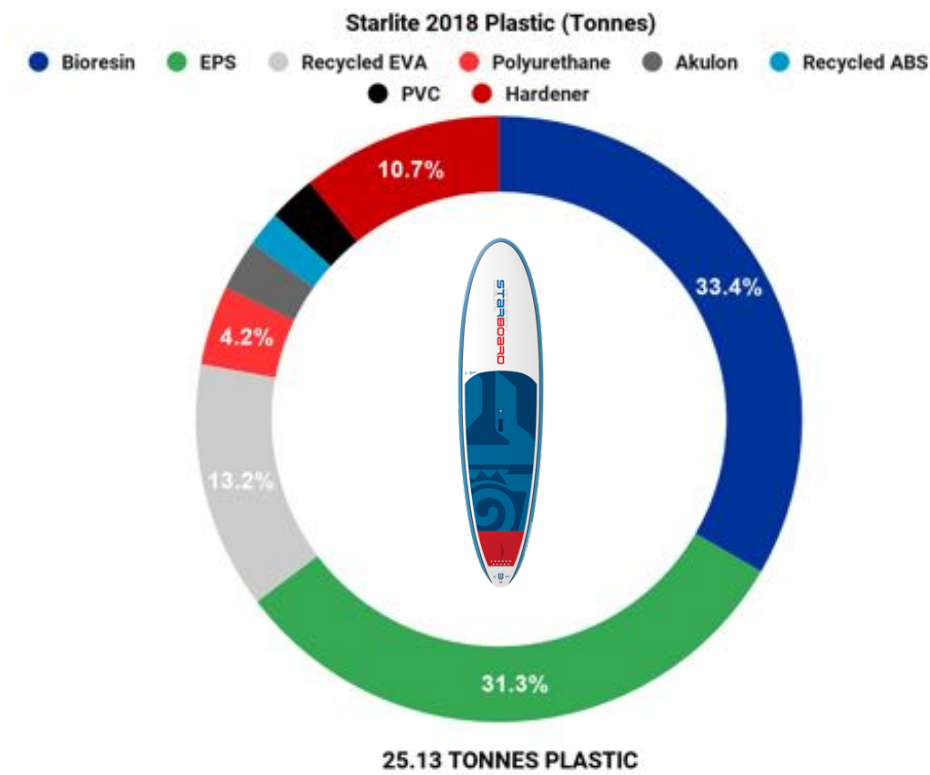
## **Purpose**

The purpose of this report is to disclose Starboard's plastic footprint for fiscal year 2019. The report is made public in an effort to be completely transparent about our plastic usage and our role as a polluter.

In 2018 Starboard published its first Plastic Footprint report after our Blue Team completed the first full calculation of our plastic use. The report goes through the calculations of Starboard's plastic footprint from every variety of products which includes; boards, accessories, apparel, packaging, and operations. This report presents data about our plastic emissions compared to 2018 and 2019. In this report you will find the Starboard products breakdown of our plastic usage in 2018 and 2019.

Composite SUP

Starlite

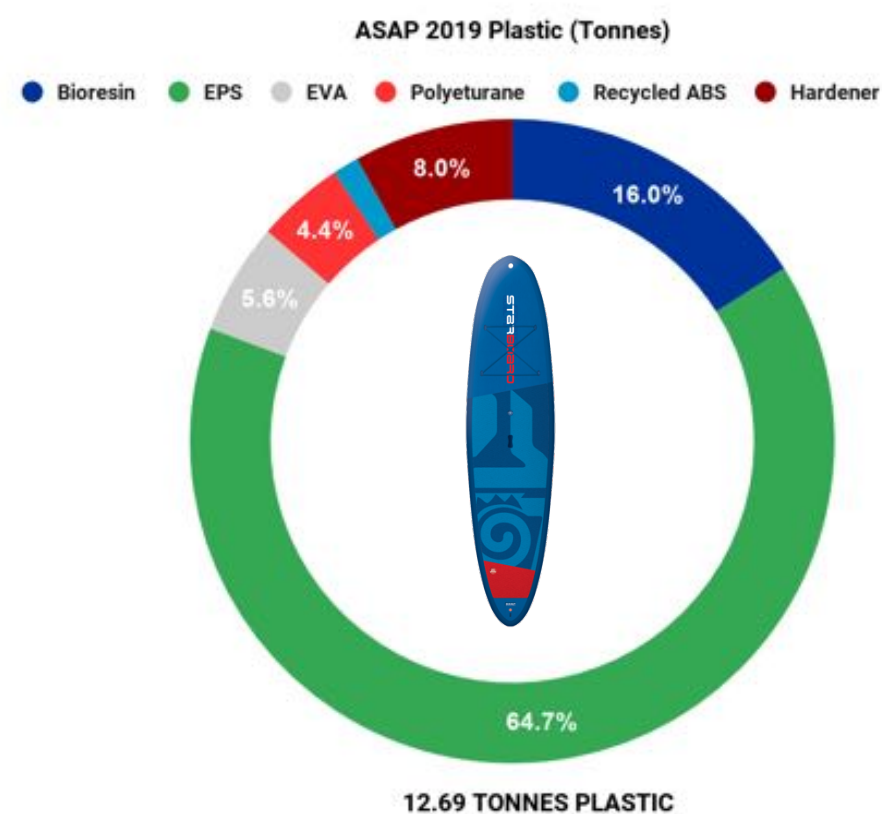
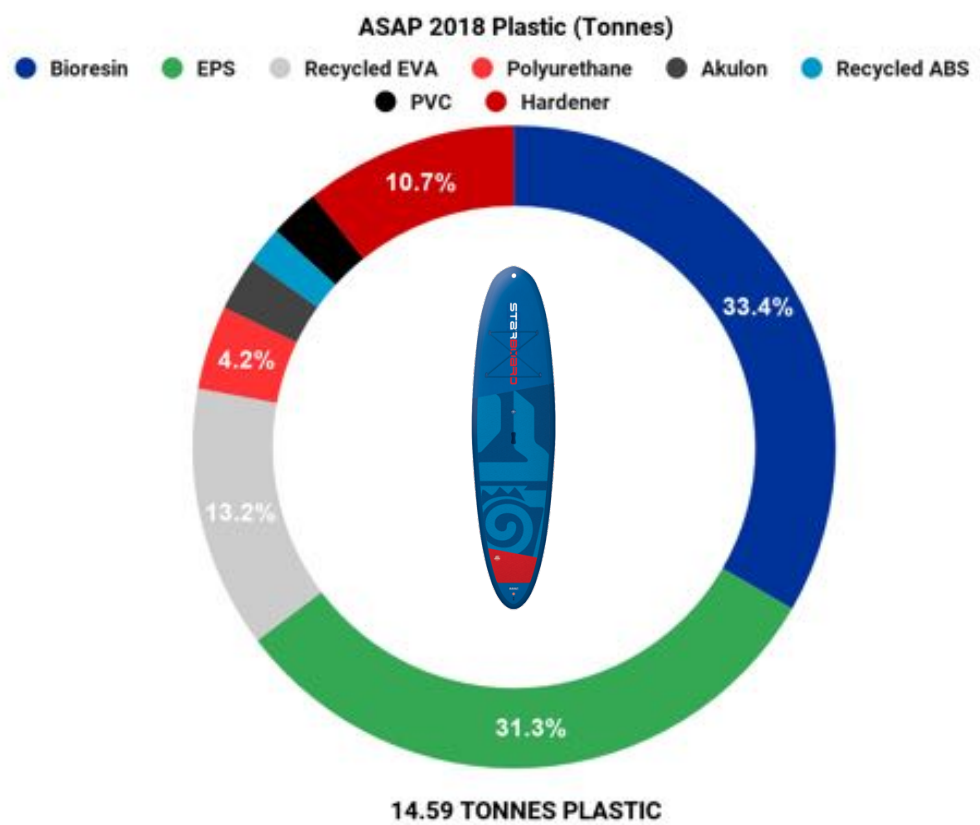


## Comparisons of Starlite

Starlite 2018	Plastic (tonnes)
Bioresin	8.39
EPS	7.87
Recycled EVA	3.32
Polyurethane	1.06
Akulon	0.68
Recycled ABS	0.48
PVC	0.63
Hardener	2.7
Total	25.13

Starlite 2019	Plastic (tonnes)
Bioresin	7.44
EPS	8.72
Polyurethane	2.22
ABS	0.53
PVC	1.70
Hardener	3.24
Total	23.85

- 0.95 tonnes of Bioresin reduced in 2019 ↓
- 0.85 tonnes of EPS increased in 2019 ↑
- 0.48 tonnes of Recycled ABS replaced by 0.53 tonnes of ABS in 2019 ↑
- 1.07 tonnes of PVC increased in 2019 ↑
- 1.16 tonnes of Polyurethane increased in 2019 ↑
- 0.54 tonnes of Hardener increased in 2019 ↑
- In 2019, changes in Starlite boards gave a total plastic reduction of 1.28 tonnes ↓



## Comparisons of ASAP

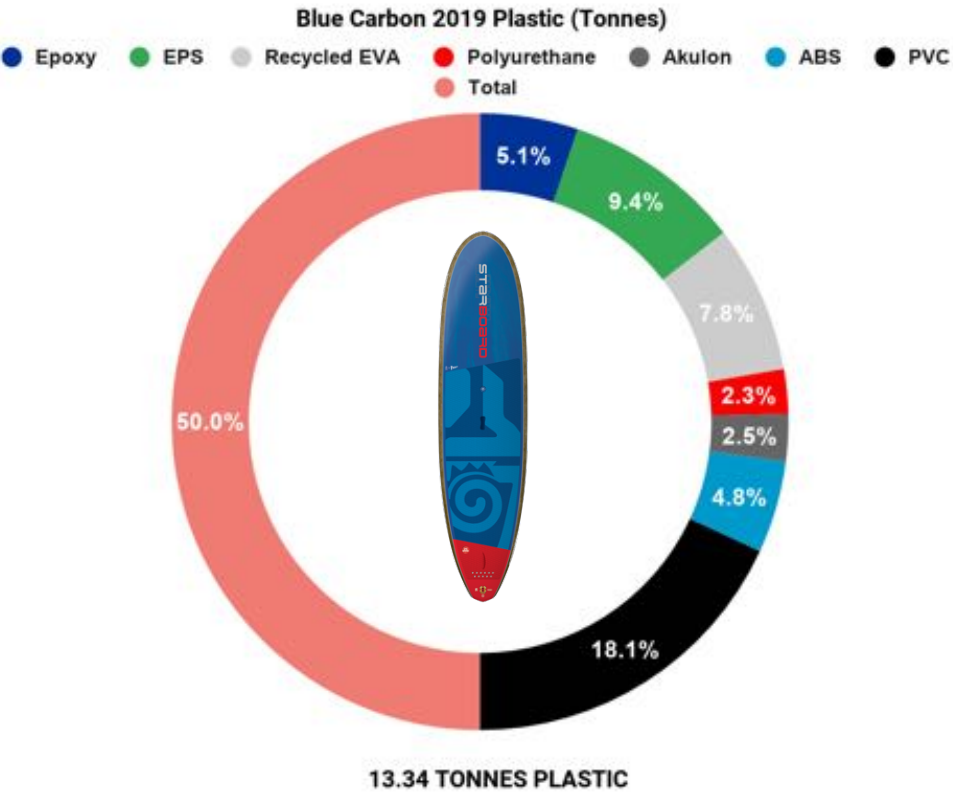
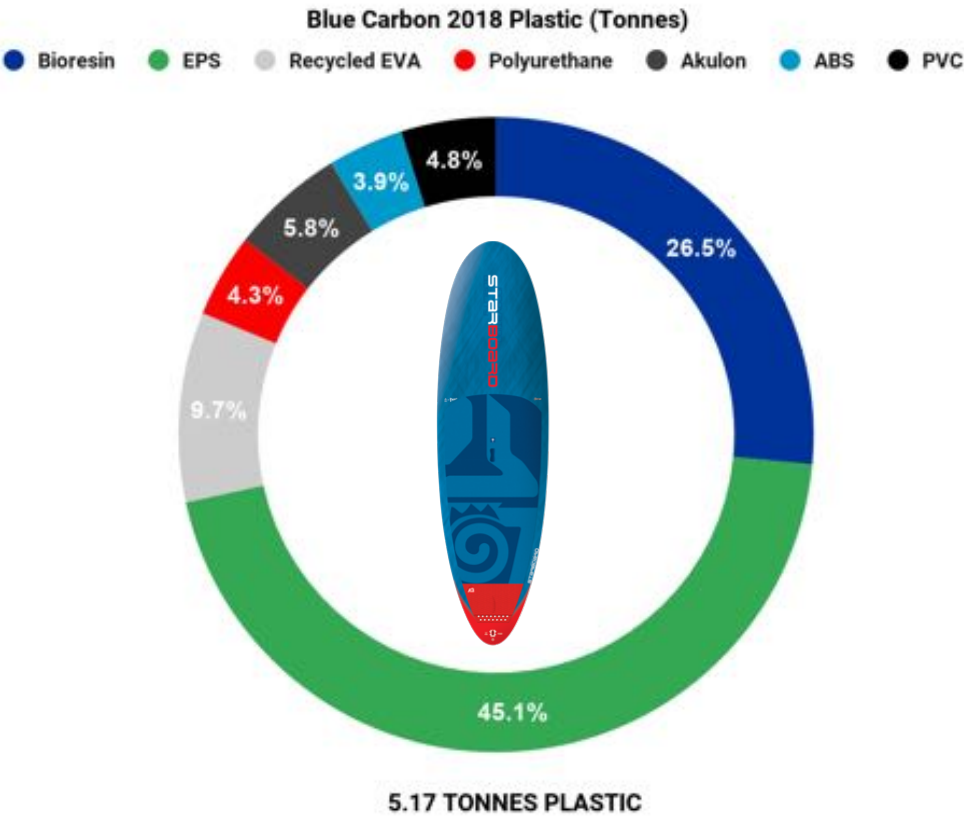
<b>ASAP 2018</b>	<b>Plastic (tonnes)</b>
Bioresin	3.12
EPS	6.35
Recycled EVA	2.43
Polyurethane	0.85
Akulon	0.53
Recycled ABS	0.29
Hardener	1.02
Total	14.59

<b>ASAP 2019</b>	<b>Plastic (tonnes)</b>
Bioresin	2.03
EPS	8.21
EVA	0.71
Polyeturance	0.56
Recycled ABS	0.17
Hardener	1.02
Total	12.69

- 1.09 tonnes of Bioresin reduced in 2019 ↓
- 1.86 tonnes of EPS increased in 2019 ↑
- 0.71 of EVA replaced 2.43 tonnes of Recycled EVA
- 0.29 tonnes of Polyurethane reduced in 2019 ↓
- 0.12 tonnes of Recycled ABS reduced in 2019 ↓
- No Akulon used in 2019 ↓
- In 2019, changes in ASAP boards gave a total plastic reduction of 1.9 tonnes ↓



Blue Carbon

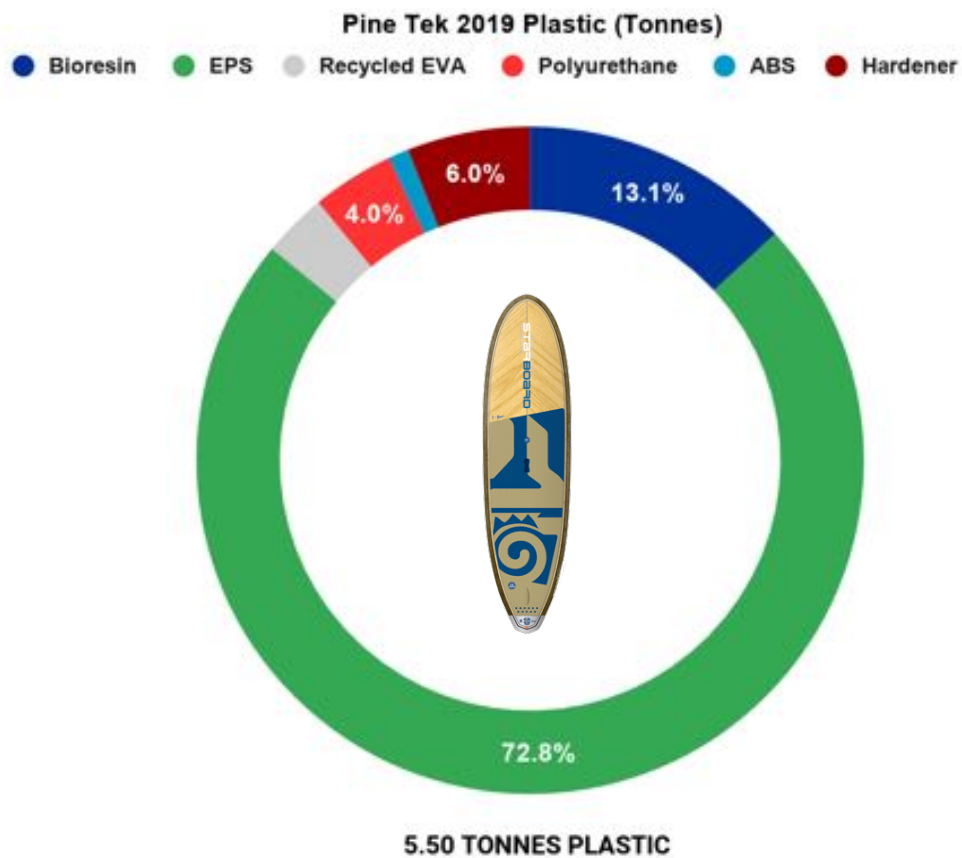
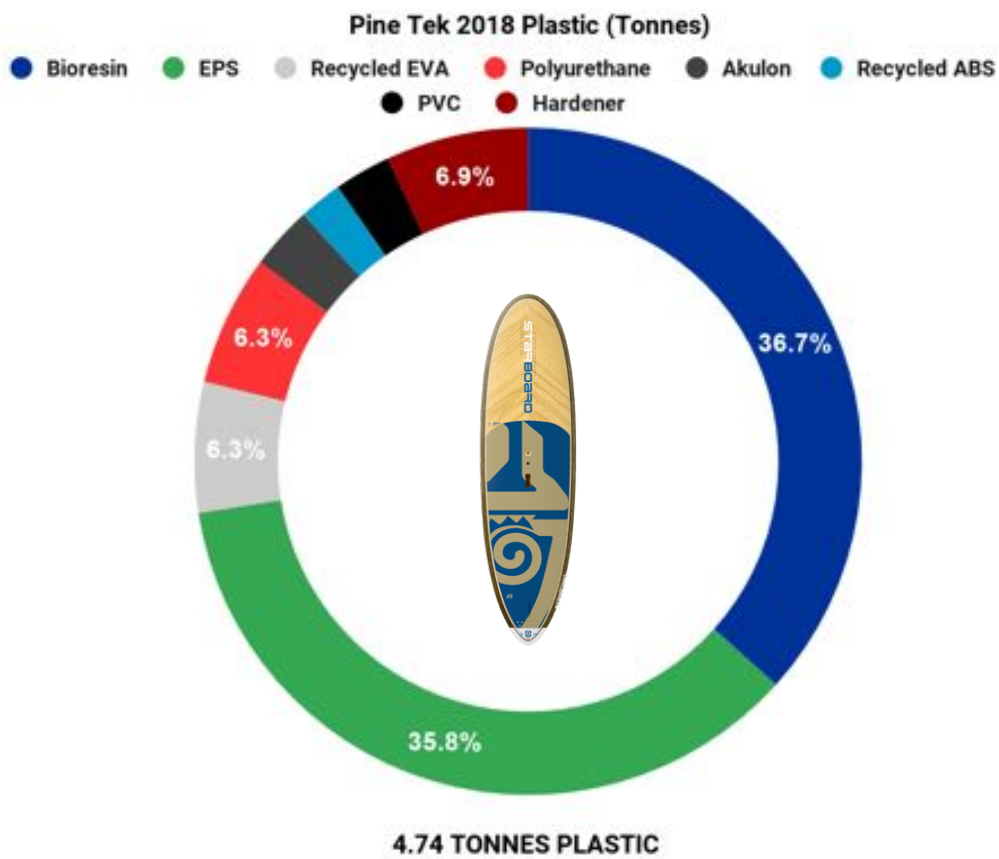


## Comparisons of Blue Carbon

Blue Carbon 2018	Plastic (tonnes)
Bioresin	1.37
EPS	2.33
Recycled EVA	0.5
Polyurethane	0.22
Akulon	0.3
ABS	0.2
PVC	0.25
Total	5.17

Blue Carbon 2019	Plastic (tonnes)
Epoxy	1.37
EPS	2.50
Recycled EVA	2.07
Polyurethane	0.62
Akulon	0.66
ABS	1.29
PVC	4.83
Total	13.34

- 0.17 tonnes of EPS increased in 2019 ↑
- 1.57 tonnes of Recycled EVA increased in 2019 ↑
- 0.4 tonnes of Polyurethane increased in 2019 ↑
- 0.36 tonnes of Akulon increased in 2019 ↑
- 4.83 tonnes of PVC used for full deck Foam
- In 2019, changes in Blue Carbon boards gave a total plastic increase of 8.17 tonnes ↑



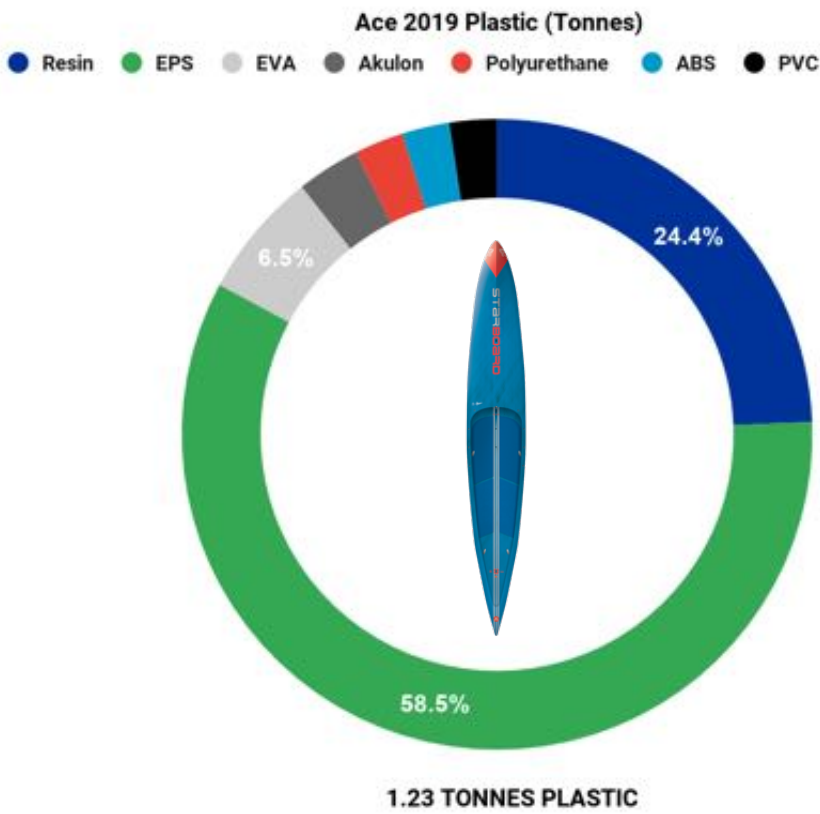
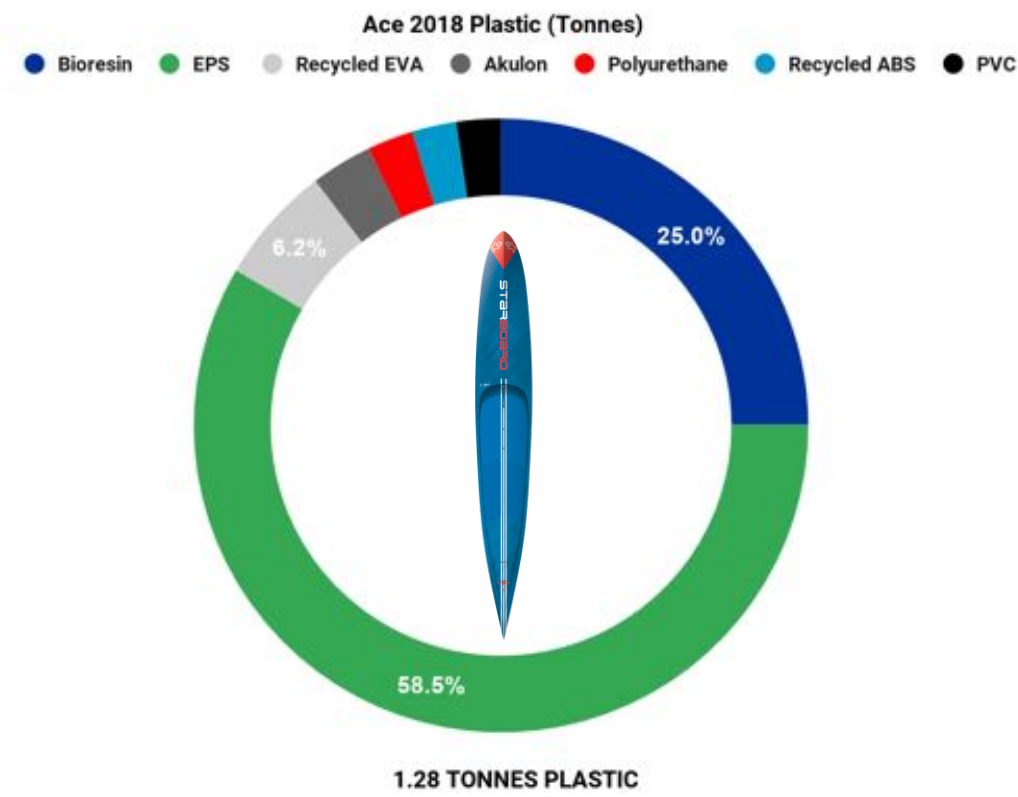
## Comparisons of Pine Tek

Pine Tek 2018	Plastic (tonnes)
Bioresin	1.74
EPS	1.70
Recycled EVA	0.30
Polyurethane	0.30
Akulon	0.15
Recycled ABS	0.10
PVC	0.13
Hardener	0.33
Total	4.74

Pine Tek 2019	Plastic (tonnes)
Bioresin	0.72
EPS	4.00
Recycled EVA	0.17
Polyurethane	0.22
ABS	0.05
PVC	0.003
Hardener	0.33
Total	5.50

- 1.02 tonnes of Bioresin reduced in 2019 ↓
- 2.3 tonnes of EPS increased in 2019 ↑
- 0.13 tonnes of Recycled EVA reduced in 2019 ↓
- 0.08 tonnes of Polyurethane EVA reduced in 2019 ↓
- 0.1 tonnes of Recycled ABS replaced by 0.05 tonnes of ABS ↓
- 0.12 tonnes of PVC decreased in 2019 ↓
- In 2019, changes in Pine Tek boards gave a total plastic increase of 0.76 tonnes ↑

Ace



## Comparison of Ace

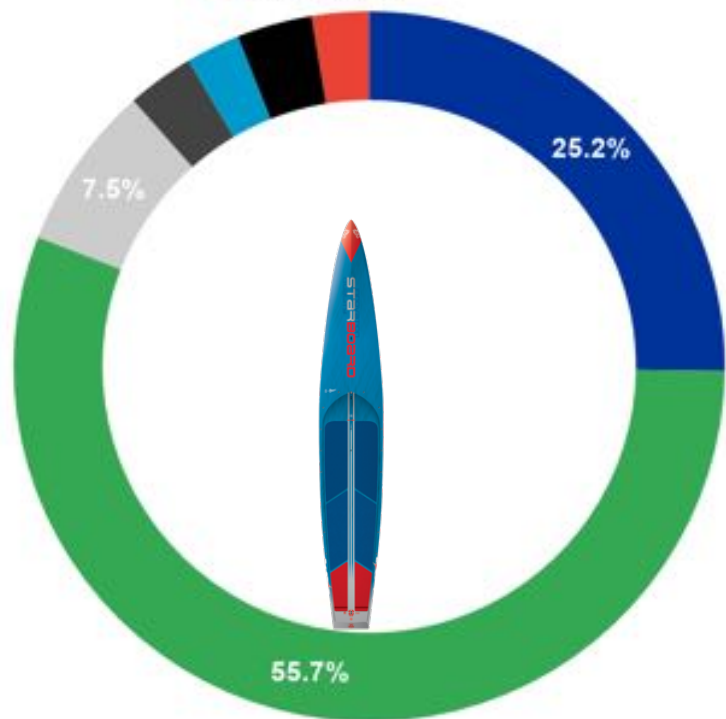
<b>SUP Race 2018</b>	<b>Plastic (tonnes)</b>
Bioresin	0.32
EPS	0.75
Recycled EVA	0.08
Akulon	0.04
Polyurethane	0.03
Recycled ABS	0.03
PVC	0.03
Total	1.28

<b>SUP Race 2019</b>	<b>Plastic (tonnes)</b>
Resin	0.30
EPS	0.72
EVA	0.08
Akulon	0.04
Polyurethane	0.03
ABS	0.03
PVC	0.03
Total	1.23

- 0.32 tonnes of Bioresin replaced by 0.30 tonnes of Resin ↓
- 0.03 tonnes of EPS reduced in 2019 ↓
- Recycled EVA replaced by EVA in 2019
- Recycled ABS replaced by ABS
- In 2019, changes in SUP Race boards gave a total plastic decrease of 0.05 tonnes ↓

**All Star 2018 Plastic (Tonnes)**

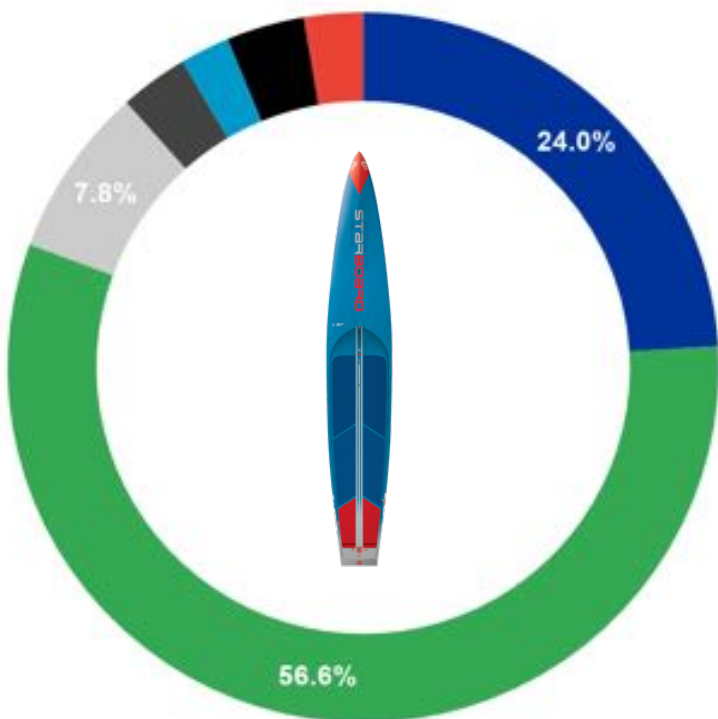
● Bioresin   ● EPS   ● Recycled EVA   ● Akulon   ● Recycled ABS   ● PVC   ● Polyurethane



5.46 TONNES PLASTIC

**All Star 2019 Plastic (Tonnes)**

● Resin   ● EPS   ● Recycled EVA   ● Akulon   ● ABS   ● PVC   ● Polyurethane



5.37 TONNES PLASTIC

## Comparison of All Star

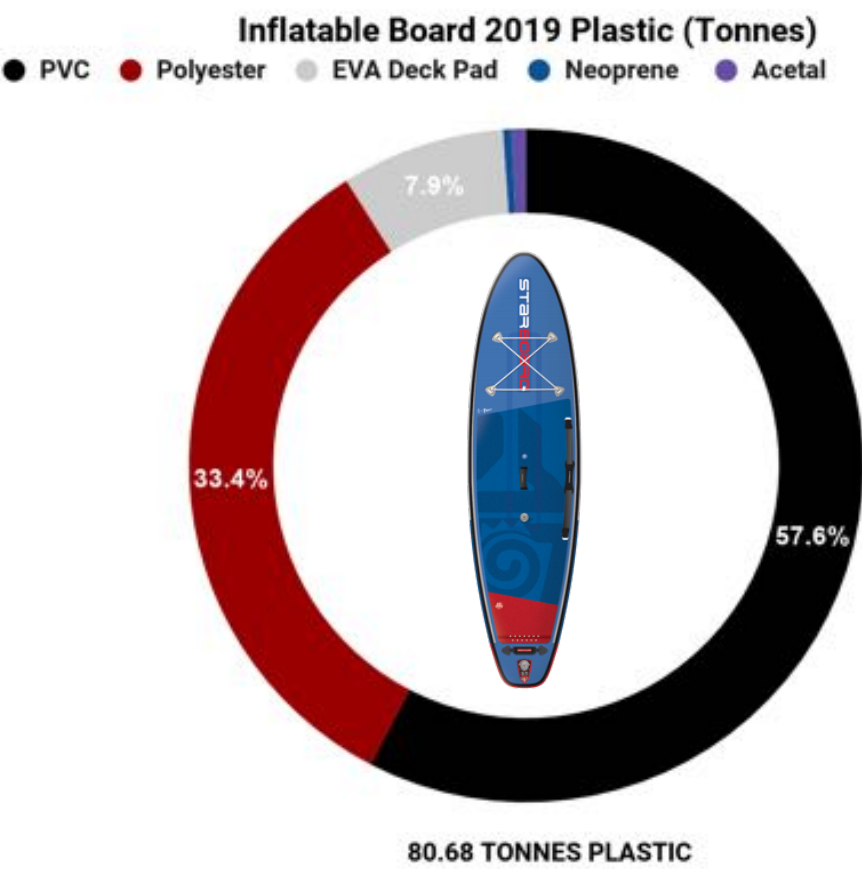
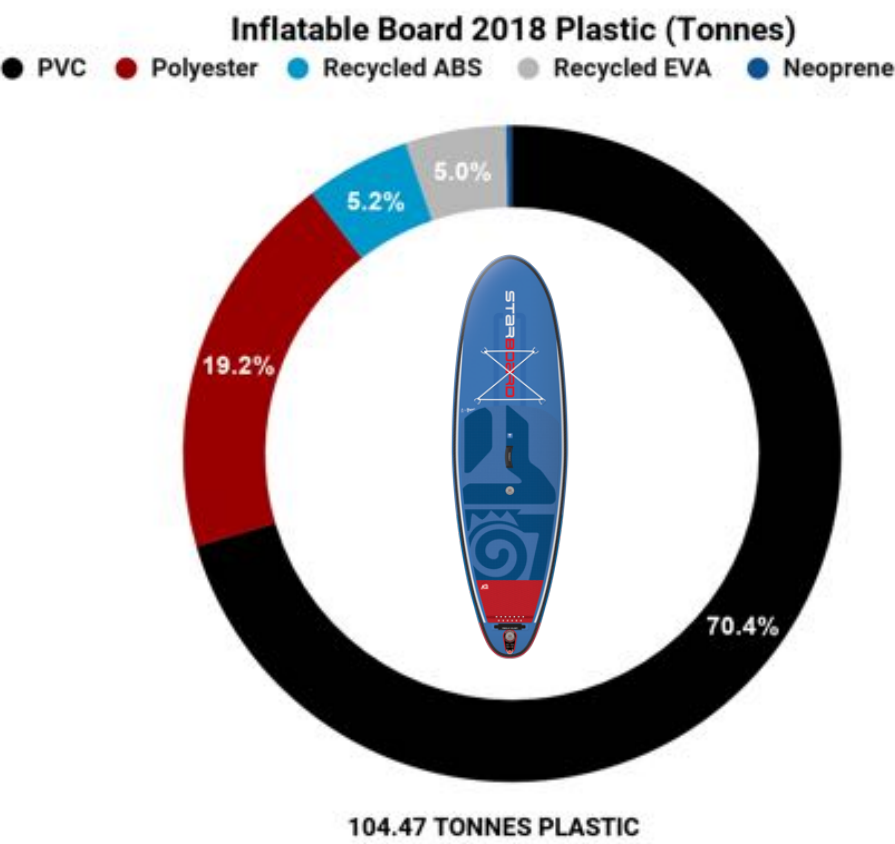
<b>SUP Race Carbon Sandwich 2018</b>	<b>Plastic (tonnes)</b>
Bioresin	1.84
EPS	4.07
Recycled EVA	0.55
Akulon	0.22
Recycled ABS	0.18
PVC	0.25
Polyurethane	0.19
Total	5.46

<b>SUP Race Carbon Sandwich 2019</b>	<b>Plastic (tonnes)</b>
Resin	1.70
EPS	4.00
Recycled EVA	0.55
Akulon	0.22
ABS	0.16
PVC	0.25
Polyurethane	0.19
Total	5.37

- 1.84 tonnes of Bioresin replaced by 1.7 tonnes of resin ↓
- 0.07 tonnes of EPS reduced in 2019 ↓
- 0.18 tonnes of Recycled ABS replaced by 0.16 tonnes ABS ↓
- In 2019, changes in SUP Race Carbon Sandwich boards gave a total plastic decrease of 0.09 tonnes ↓



Inflatable SUP



## Comparisons Inflatable SUP

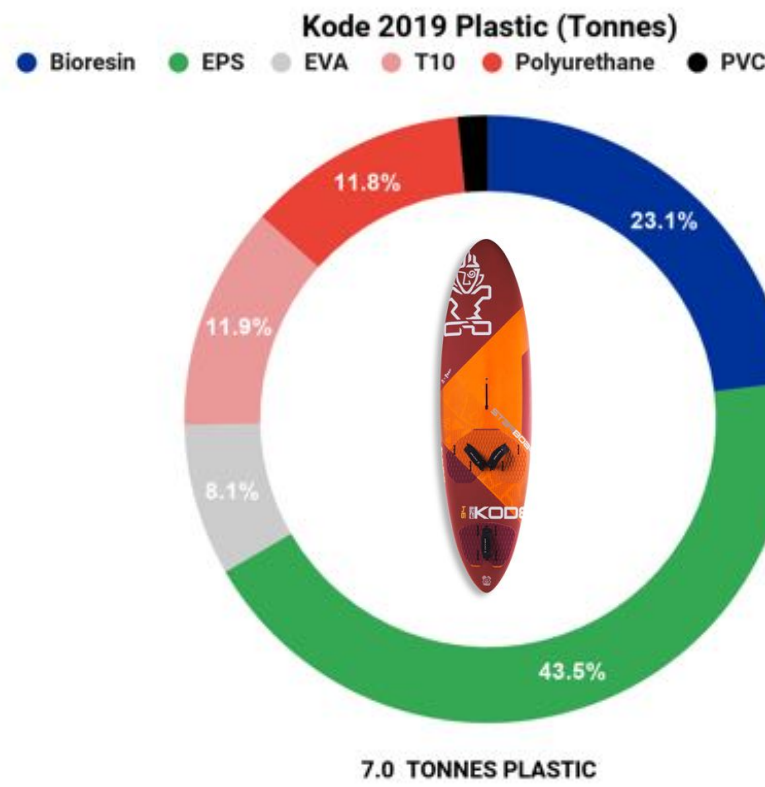
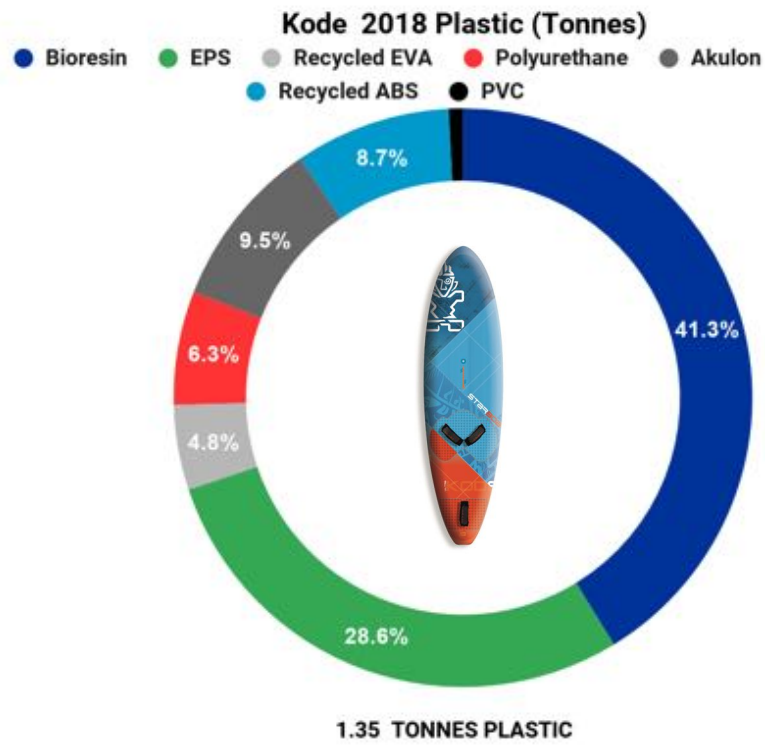
<b>Inflatable Board 2018</b>	<b>Total (Tonnes)</b>
PVC	73.58
Polyester	20.01
Recycled ABS	5.39
Recycled EVA	5.18
Neoprene	0.31
Total	104.47

<b>Inflatable 2019</b>	<b>Total (Tonnes)</b>
PVC	46.49
Polyester	26.96
EVA Deck Pad	6.34
Neoprene	0.33
Acetal	0.56
Total	80.68

- 27.09 tonnes of PVC reduced in 2019 ↓
- 6.95 tonnes of Polyester increased in 2019 ↑
- No recycled ABS used in 2019 ↓
- 5.18 tonnes of 50% recycled EVA replaced by 6.34 tonnes of EVA ↑
- 0.02 tonnes of Neoprene increased in 2019 ↑
- 0.56 tonnes of Acetal used in 2019

Windsurf

Kode

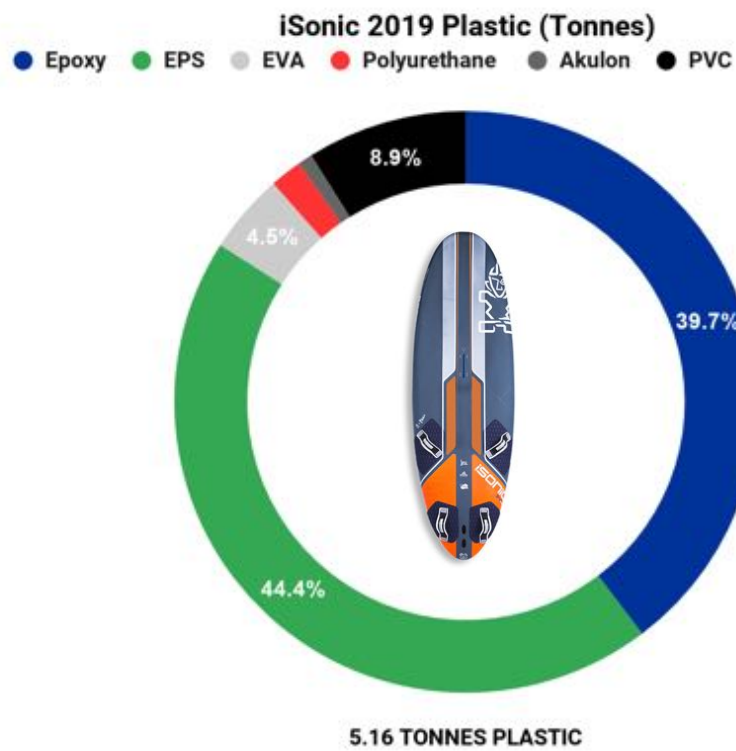
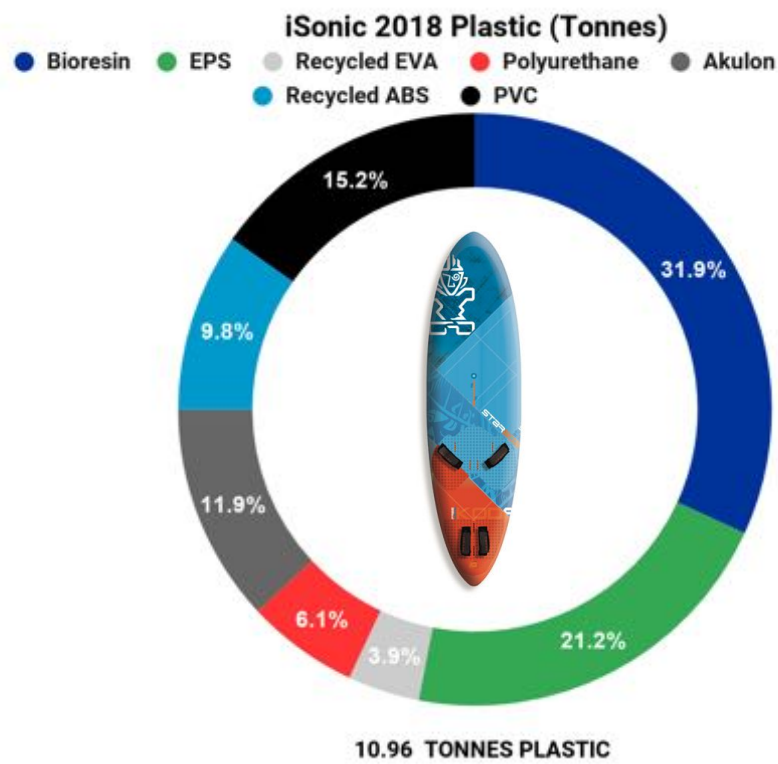


## Comparisons Kode

Kode 2018	Plastic (tonnes)
Bioresin	0.52
EPS	0.36
Recycled EVA	0.06
Polyurethane	0.08
Akulon	0.12
Recycled ABS	0.11
PVC	0.01
Total	1.26

Kode 2019	Plastic (tonnes)
Bioresin	1.62
EPS	3.05
EVA	0.57
T10	0.84
Polyurethane	0.82
PVC	0.11
Total	7.00

- 1.1 tonnes of Bioresin increased in 2019 ↑
- 2.69 tonnes of EPS increased in 2019 ↑
- 0.06 tonnes of 50% recycled EVA replaced by 0.57 EVA in 2019 ↑
- 0.12 tonnes of Akulon replaced by 0.84 tonnes of T10 in 2019 ↑
- 0.74 tonnes of Polyurethane increased in 2019 ↑
- 0.1 tonnes of PVC increased in 2019 ↑
- In 2019, changes in Kode Windsurf boards gave a total plastic decrease 5.74 tonnes ↑



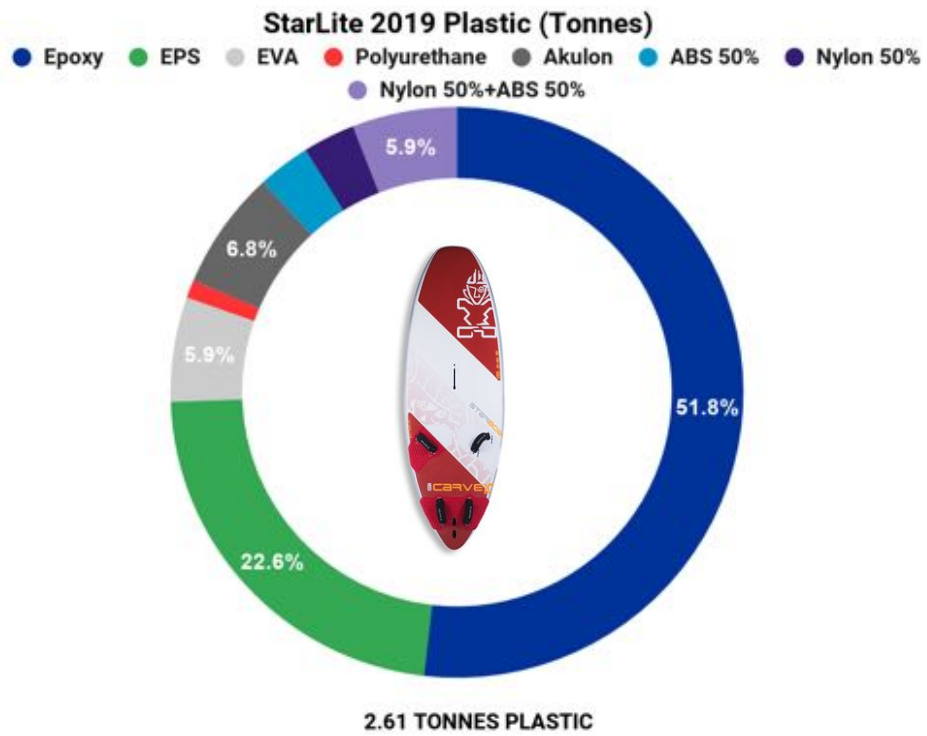
## Comparisons of Carbon Reflex/iSonic

<b>Carbon Reflex 2018</b>	<b>Plastic (tonnes)</b>
Bioresin	3.49
EPS	2.32
Recycled EVA	0.43
Polyurethane	0.67
Akulon	1.31
Recycled ABS	1.07
PVC	1.67
Total	10.96

<b>iSonic 2019</b>	<b>Plastic (tonnes)</b>
Epoxy	2.05
EPS	2.29
EVA	0.23
Polyurethane	0.09
Akulon	0.04
PVC	0.46
Total	5.16

- Carbon Reflex changed the name to iSonic
- 3.49 tonnes of Bioresin replaced by 2.05 tonnes of epoxy in 2019
- 0.03 tonnes of EPS reduced in 2019 ↑
- 0.43 tonnes of 50% recycled EVA replaced by 0.23 tonnes of EVA in 2019 ↓
- 0.58 tonnes of Polyurethane reduced in 2019 ↓
- 1.27 tonnes of Akulon reduced in 2019 ↓
- 1.21 tonnes of PVC reduced in 2019 ↓
- In 2019, changes in Carbon Reflex/iSonic boards gave a total plastic decrease 5.8 tonnes ↓

Starlite



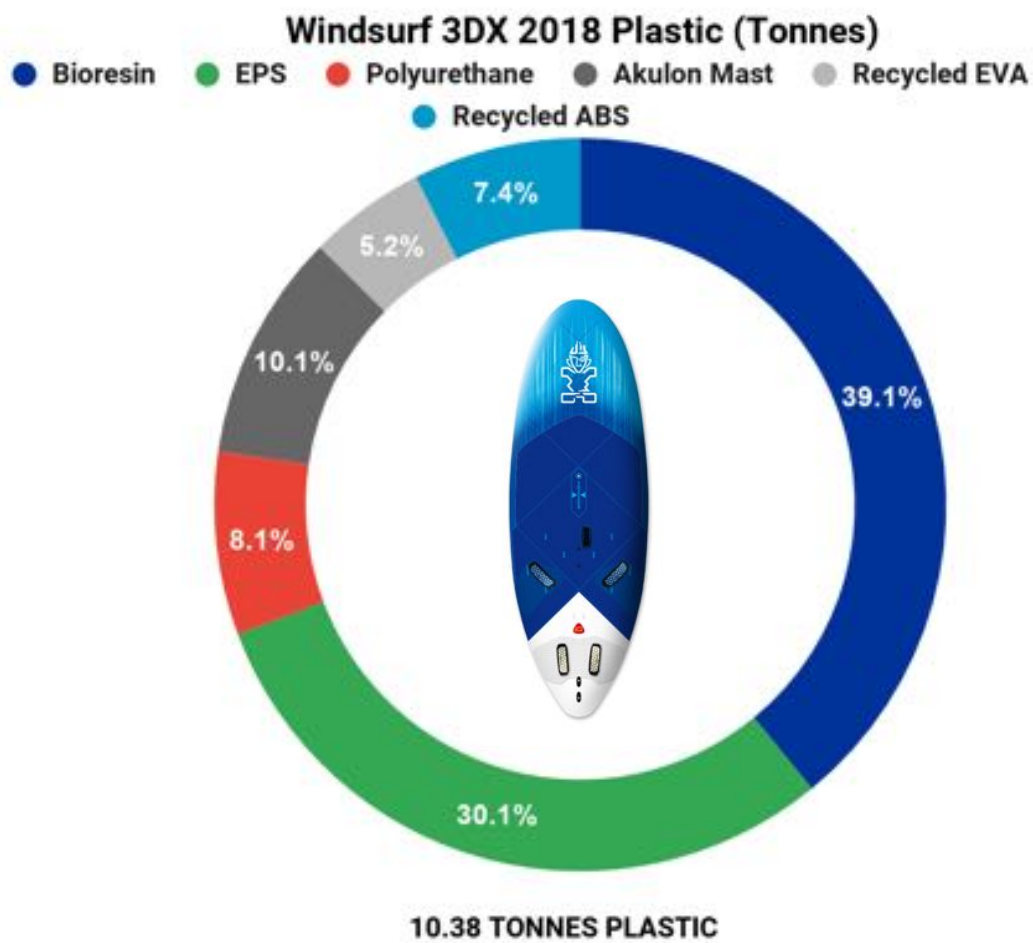
## Comparisons of Starlite

<b>Carve Starlite 2018</b>	<b>Plastic (tonnes)</b>
Bioresin	2.15
EPS	1.77
Recycled EVA	0.31
Polyurethane	0.48
Akulon	0.58
Recycled ABS	0.43
PVC	0.06
<b>TOTAL</b>	<b>5.78</b>

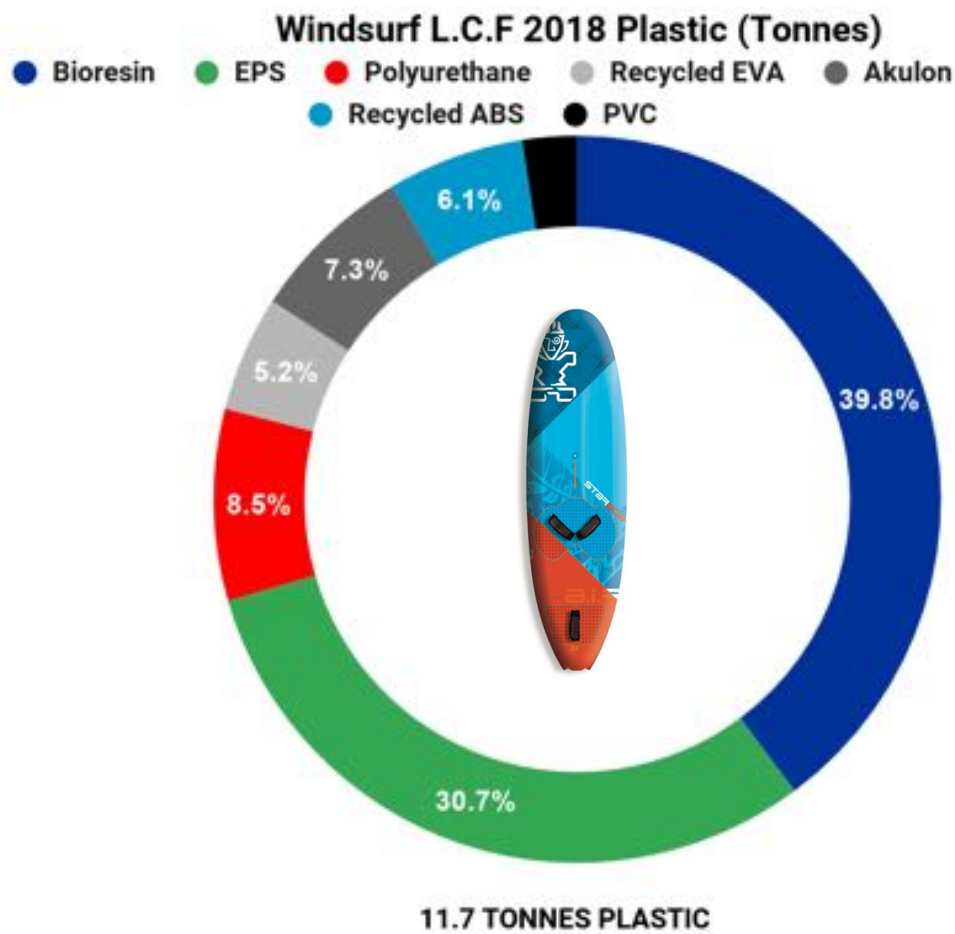
<b>Carve Starlite 2019</b>	<b>Plastic (tonnes)</b>
Epoxy	1.35
EPS	0.59
EVA	0.15
Polyurethane	0.03
Akulon	0.18
ABS 50%	0.08
Nylon 50%	0.08
Nylon 50%+ABS 50%	0.15
<b>TOTAL</b>	<b>2.61</b>

- 2.15 tonnes of Bioresin replaced by 1.35 tonnes of epoxy in 2019
- 1.18 tonnes of EPS reduced in 2019 ↓
- 0.31 tonnes of 50% recycled EVA replaced by 0.15 tonnes of EVA in 2019 ↓
- 0.45 tonnes of Polyurethane reduced in 2019 ↓
- 0.4 tonnes of Akulon reduced in 2019 ↓
- 0.15 tonnes of Nylon 50%+ ABS 50% used in 2019
- 0.08 tonnes of Nylon 50% used in 2019
- 0.08 tonnes of ABS 50% used in 2019
- In 2019, changes in Starlite boards gave a total plastic decrease 3.17 tonnes ↓

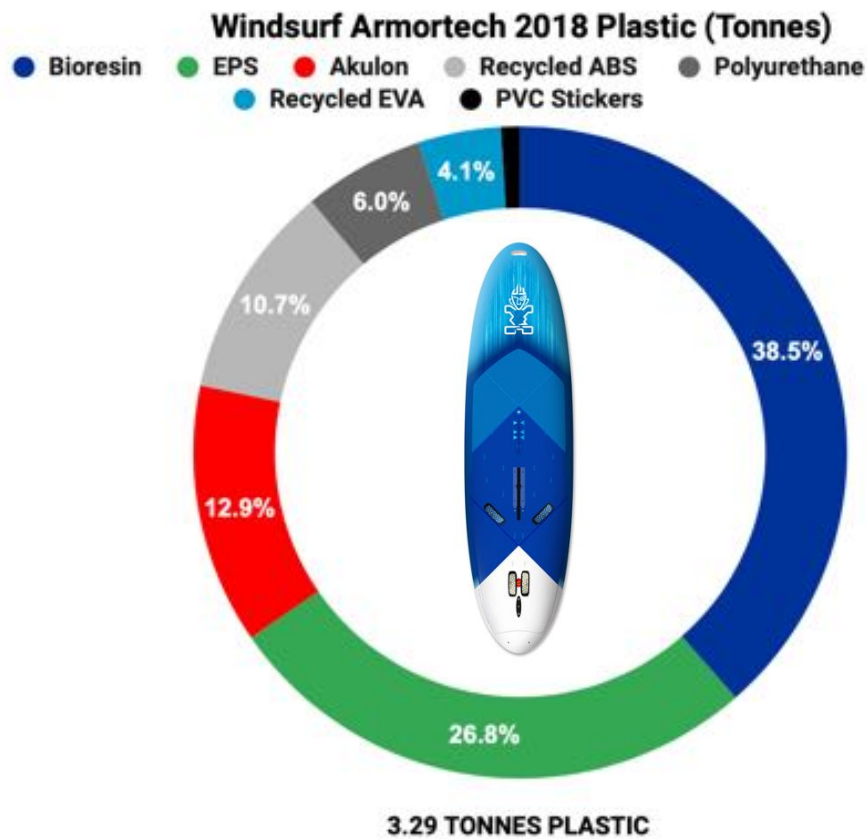




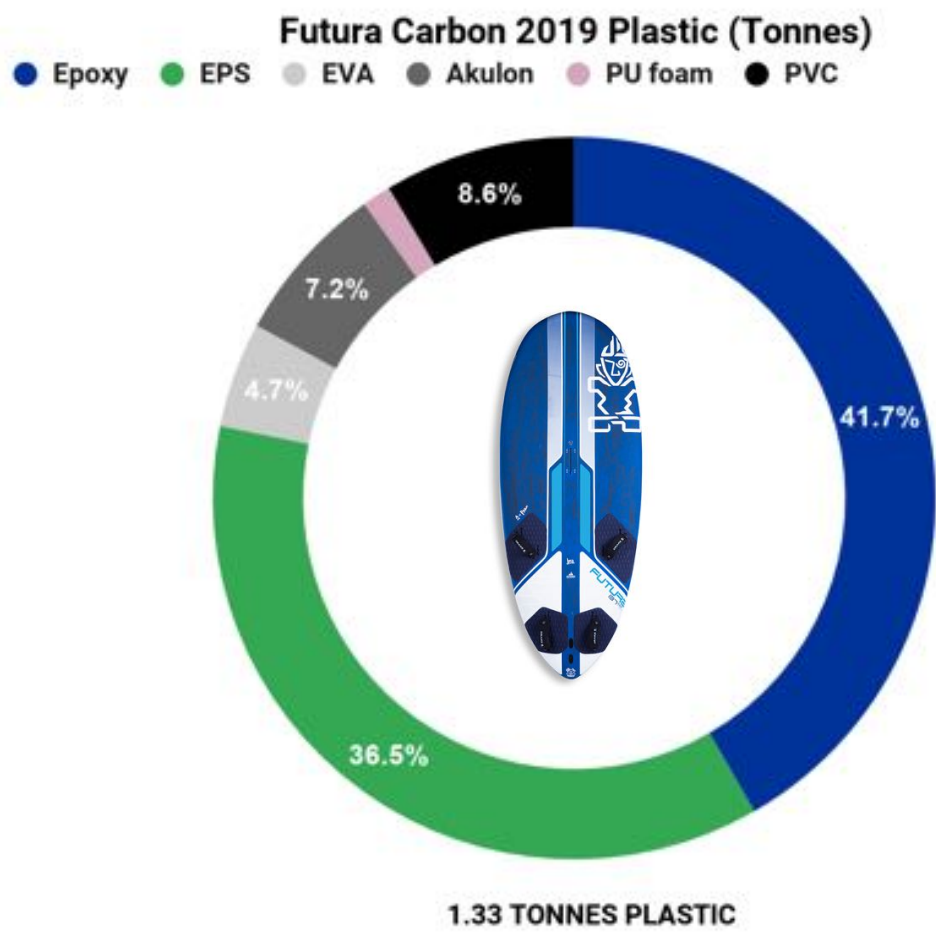
Windsurf 3DX 2018	Plastic (tonnes)
Bioresin	4.06
EPS	3.13
Polyurethane	0.84
Akulon Mast	1.04
Recycled EVA	0.54
Recycled ABS	0.77
Total	10.38



Windsurf L.C.F 2018	Plastic (tonnes)
Bioresin	4.51
EPS	3.14
Akulon	1.51
Recycled ABS	1.25
Polyurethane	0.7
Recycled EVA	0.48
PVC Stickers	0.11
Total	11.7

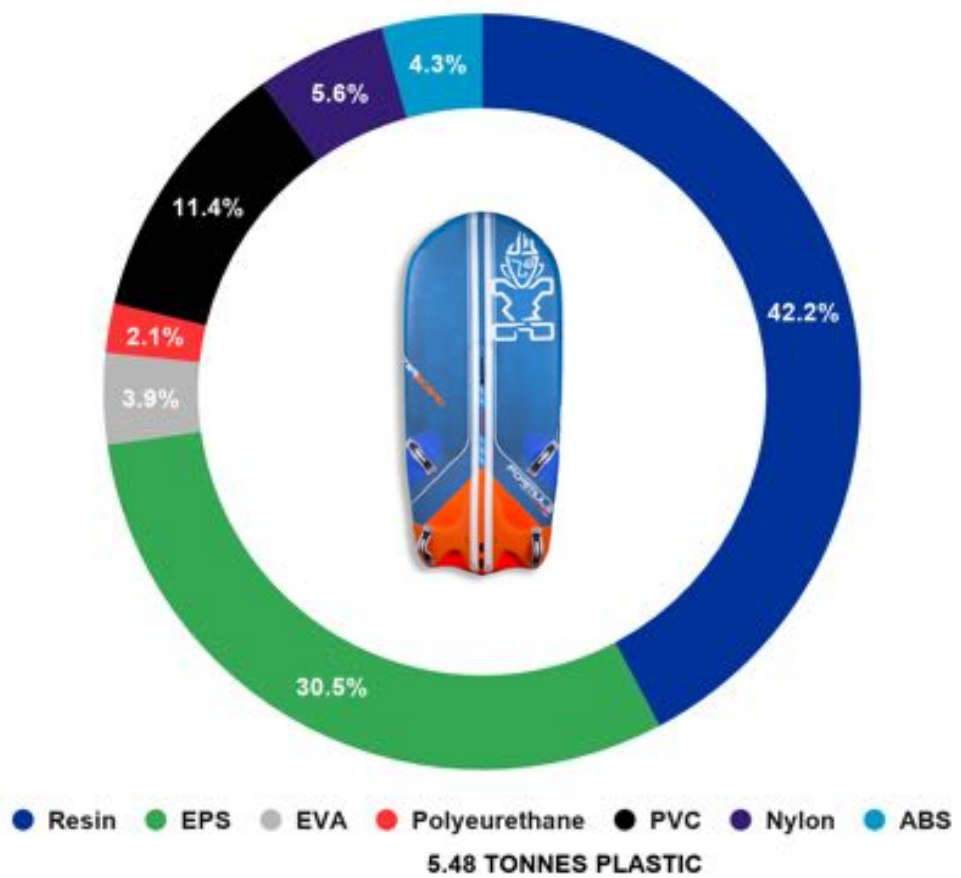


Windsurf Armortech2018	Plastic (tonnes)
Bioresin	1.31
EPS	1.01
Polyurethane	0.28
Recycled EVA	0.17
Akulon	0.24
Recycled ABS	0.20
PVC	0.08
Total	3.29



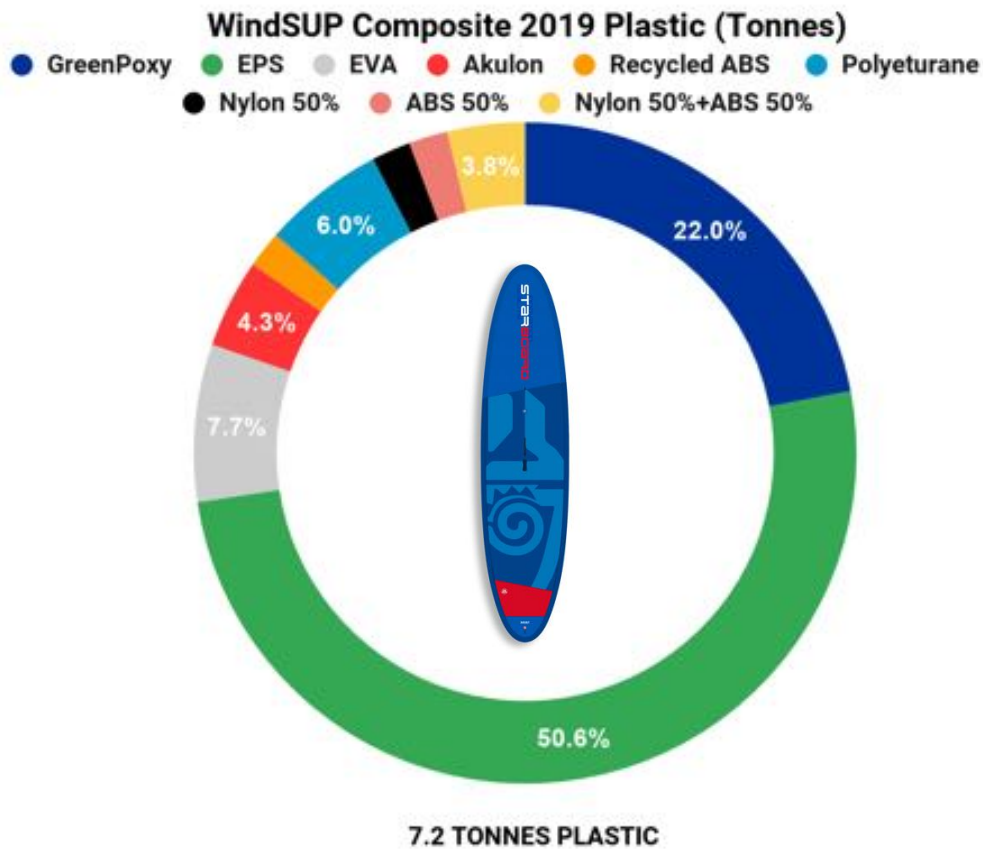
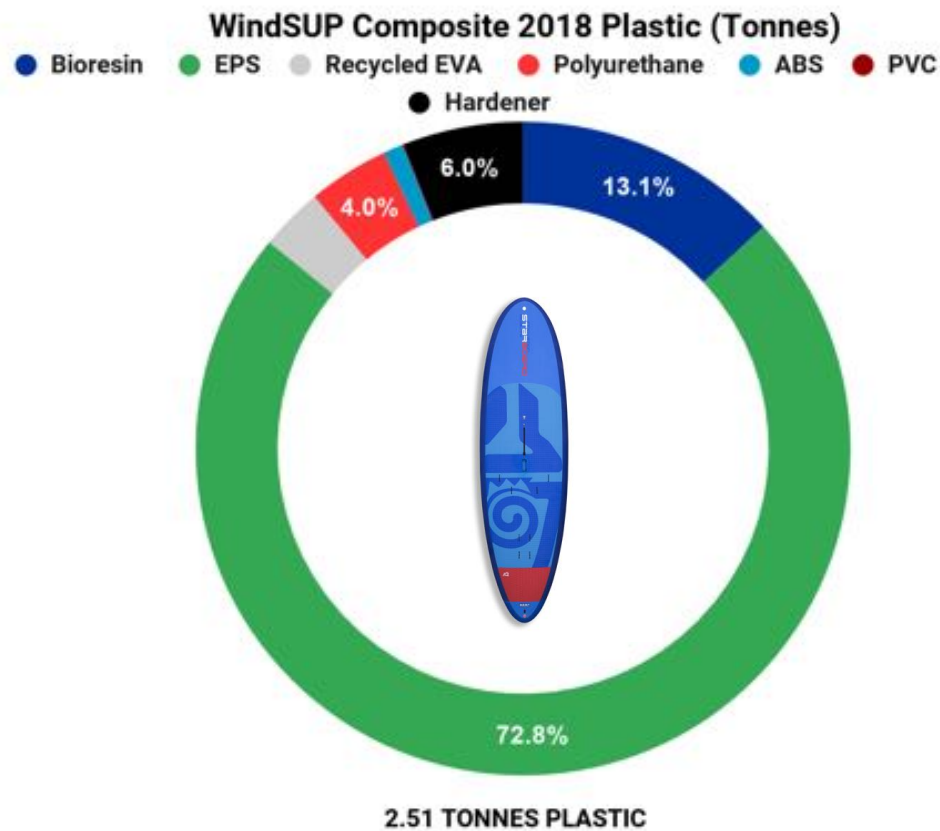
Futura Carbon 2019	Plastic (tonnes)
Epoxy	0.56
EPS	0.49
EVA	0.06
Akulon	0.10
PU foam	0.02
PVC	0.11
Total	1.33

IQFOIL 95 PLASTIC FOOTPRINT



iQfoil 95	Plastic (Tonnes)
Resin	4.01
EPS	2.90
EVA	0.37
Polyurethane	0.20
PVC	1.08
Nylon	0.53
ABS	0.41
Total	5.48

WindSup Composite



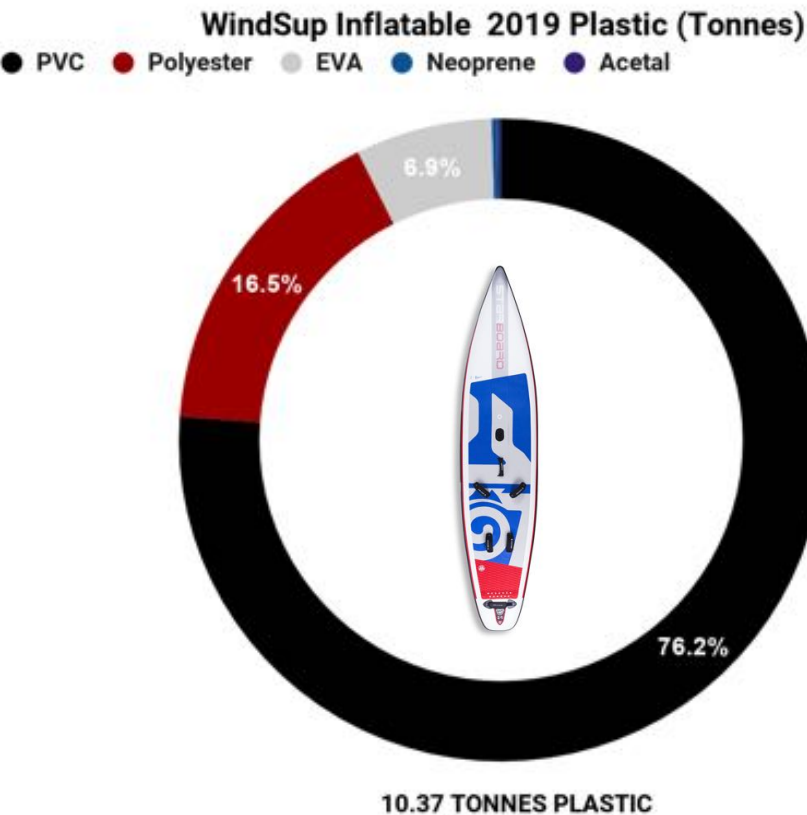
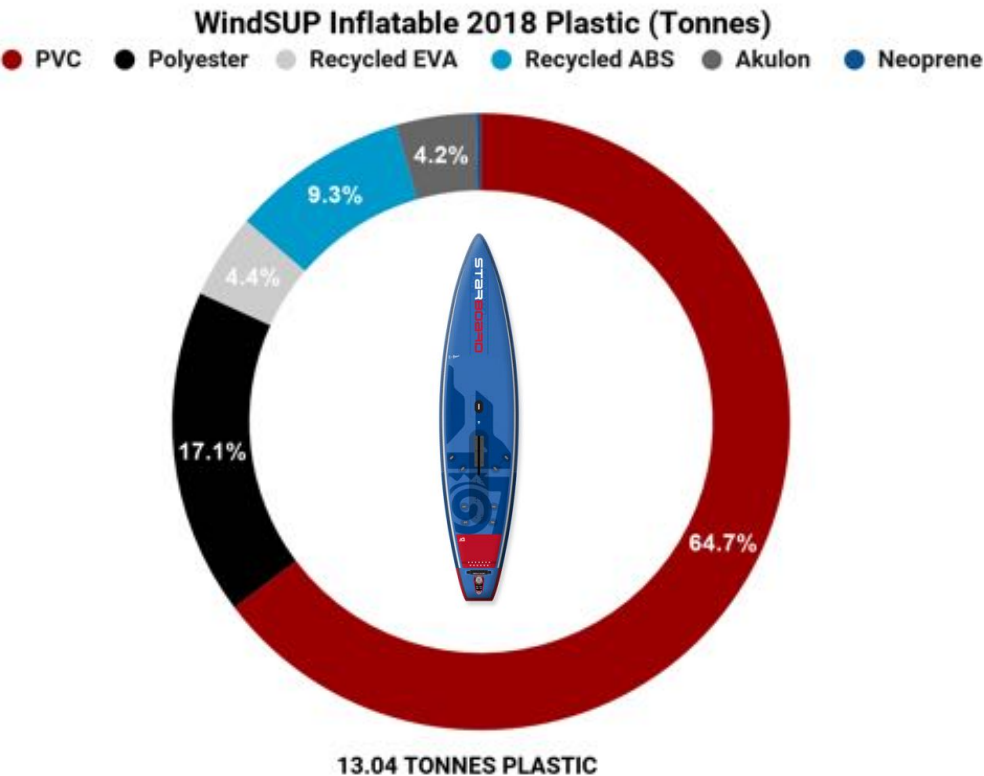
## Comparisons of WindSUP Composite

WindSUP Composite 2018	Plastic (Tonnes)
Epoxy	0.75
EPS	1.32
Recycled EVA	0.40
Akulon	0.27
Recycled ABS	0.28
Polyurethane	0.18
PVC	0.06
TOTAL	2.51

WindSUP Composite 2019	Plastic (Tonnes)
GreenPoxy	2.03
EPS	4.67
EVA	0.71
Akulon	0.40
Recycled ABS	0.17
Polyurethane	0.55
Nylon 50%	0.18
ABS 50%	0.18
Nylon 50%+ABS 50%	0.35
Total	7.20

- 0.75 tonnes of Epoxy replaced by 2.03 tonnes of greenpoxy in 2019 ↑
- 3.35 tonnes of EPS increased in 2019 ↑
- 0.4 tonnes of 50% Recycled EVA replaced by 0.71 tonnes of EVA ↑
- 0.13 tonnes of Akulon increased in 2019 ↑
- 0.11 tonnes of Recycled ABS reduced in 2019 ↓
- 0.37 tonnes of Polyurethane increased in 2019 ↑
- No PVC used in 2019 ↓
- In 2019, nylon and ABS were used in WindSUP composite ↑
- In 2019, changes in Carbon Reflex/iSonic boards gave a total plastic increase 4.69 tonnes ↑

WindSUP Inflatable





## Comparisons of WindSUP Inflatable

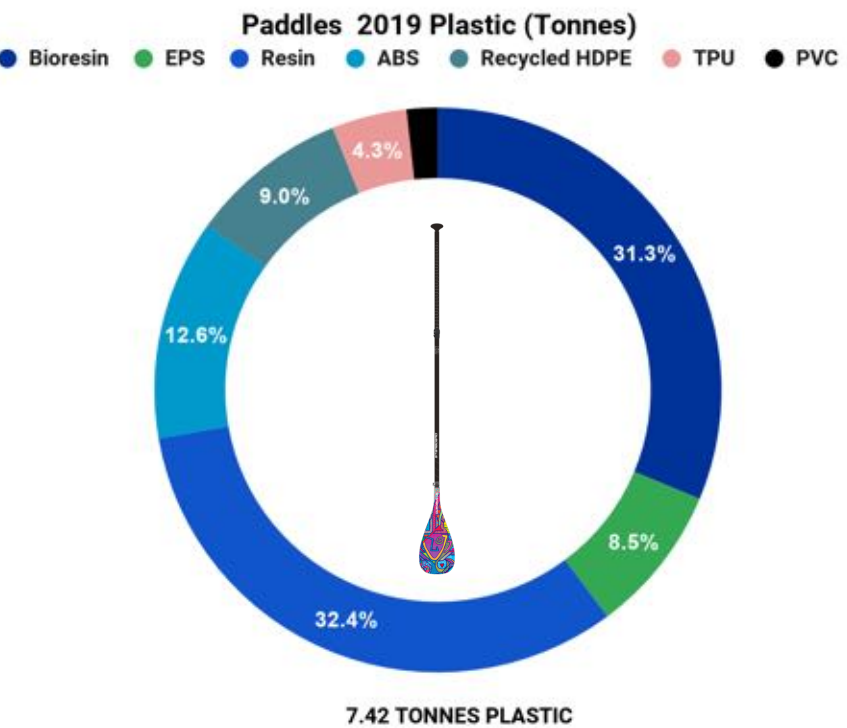
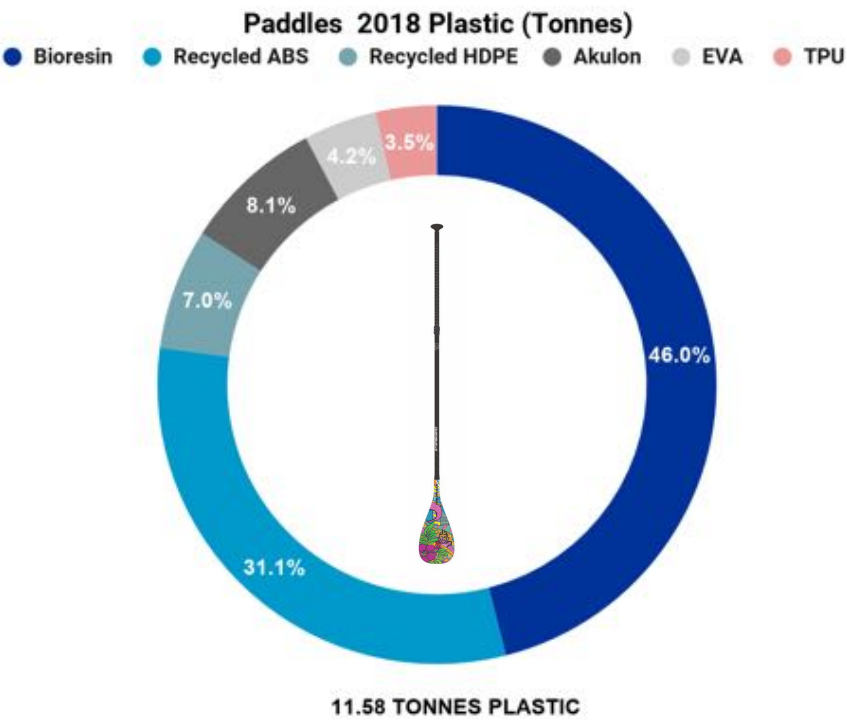
WindSUP Inflatable 2018	Plastic (tonnes)
PVC	8.44
Polyester	2.23
Recycled EVA	0.58
Recycled ABS	1.21
Akulon	0.55
Neoprene	0.03
Total	13.04

WindSup Inflatable 2019	Plastic (tonnes)
PVC	7.90
Polyester	1.71
EVA	0.71
Neoprene	0.03
Acetal	0.02
Total	10.37

- 0.54 tonnes of PVC reduced in 2019 ↓
- 0.52 tonnes of Polyester reduced in 2019 ↓
- 0.58 tonnes of 50% recycled EVA replaced by 0.71 tonnes EVA ↑
- No recycled ABS and Akulon in 2019 ↓
- 0.02 tonnes of Acetal used in 2019 ↑
- In 2019, changes in Carbon Reflex/iSonic boards gave a total plastic decrease 2.67 tonnes ↓

Accessories

Paddles



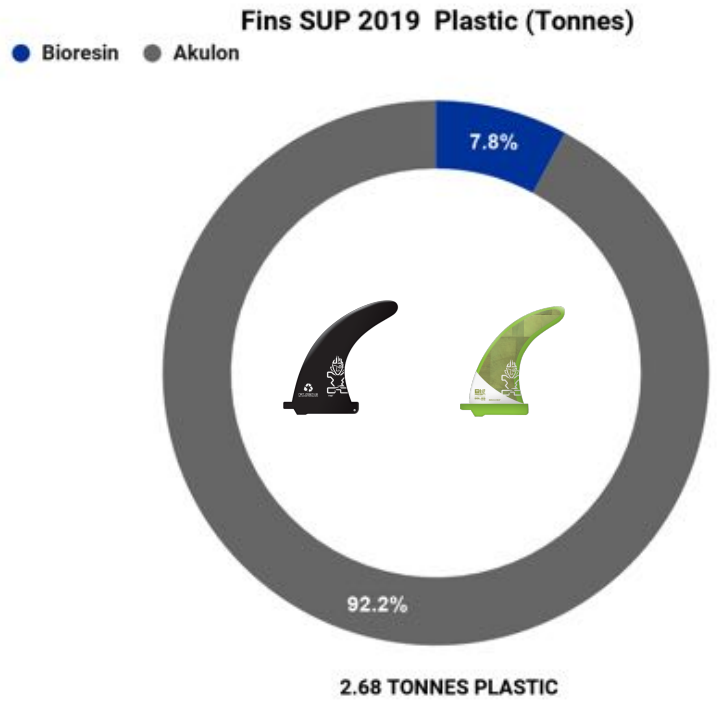
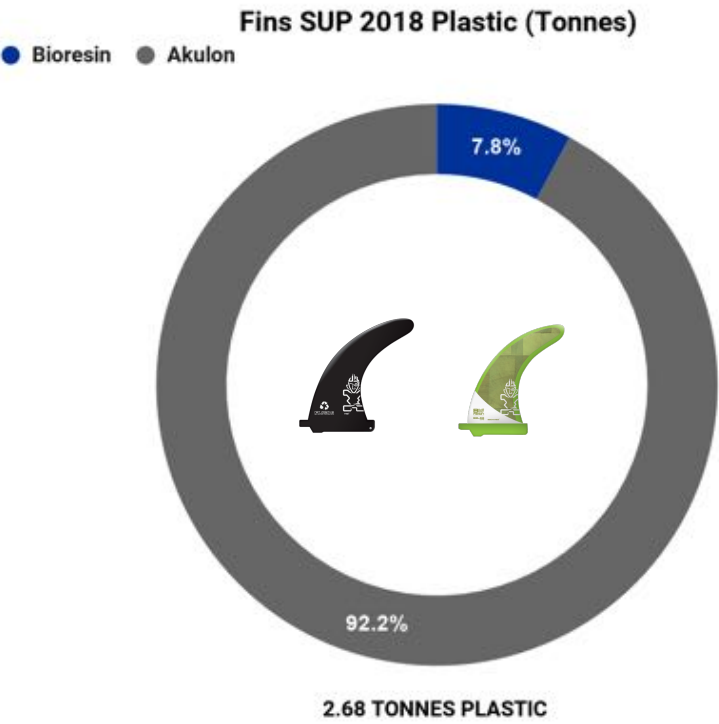
## Comparisons of Paddles

<b>Paddles 2018</b>	<b>Plastic (tonnes)</b>
Bioresin	5.33
Recycled ABS	3.6
Recycled HDPE	0.81
Akulon	0.94
EVA	0.49
TPU	0.41
Total	11.58

<b>Paddles 2019</b>	<b>Plastic (tonnes)</b>
Bioresin	3.86
EPS	1.05
Resin	4.00
ABS	1.56
Recycled HDPE	1.12
TPU	0.53
PVC	0.22
Total	7.42

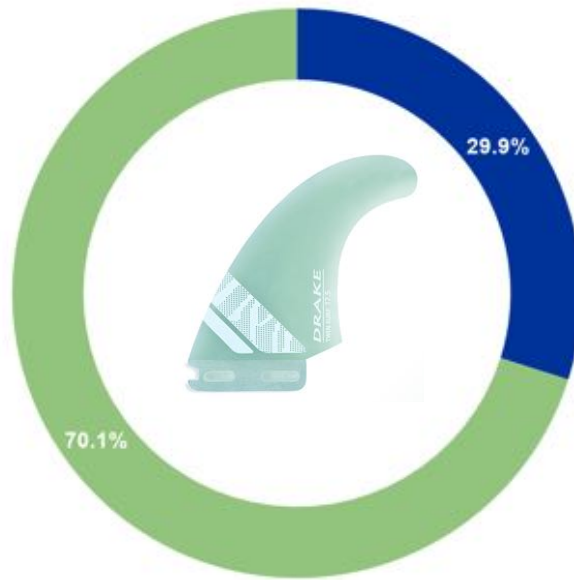
- 1.47 tonnes of bioresin reduced in 2019 ↓
- 3.6 tonnes of recycled ABS was replaced by 1.56 tonnes of ABS ↓
- 4 tonnes of resin used in 2019 ↑
- 1.05 tonnes of EPS used in 2019 ↑
- 0.12 tonnes of TPU increased in 2019 ↑
- In 2019, changes in Paddles gave a total plastic decrease 4.16 tonnes ↓

Fins



### Fins Windsurf 2018 Plastic (Tonnes)

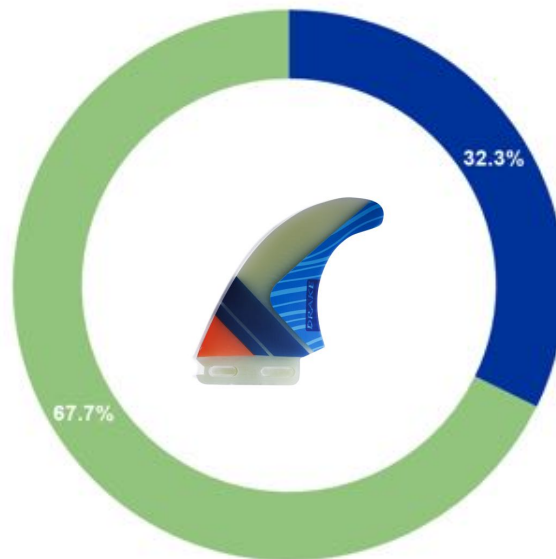
● Epoxy ● Fiberglass



3.01 TONNES PLASTIC

### Fins Windsurf 2019 Plastic (Tonnes)

● Epoxy ● Fiberglass



4.59 TONNES PLASTIC

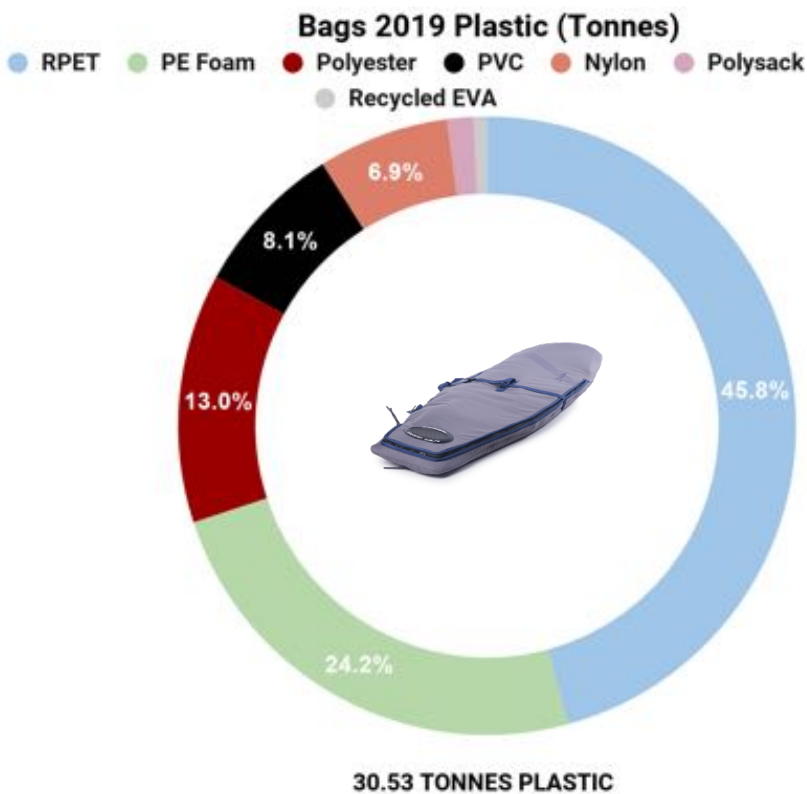
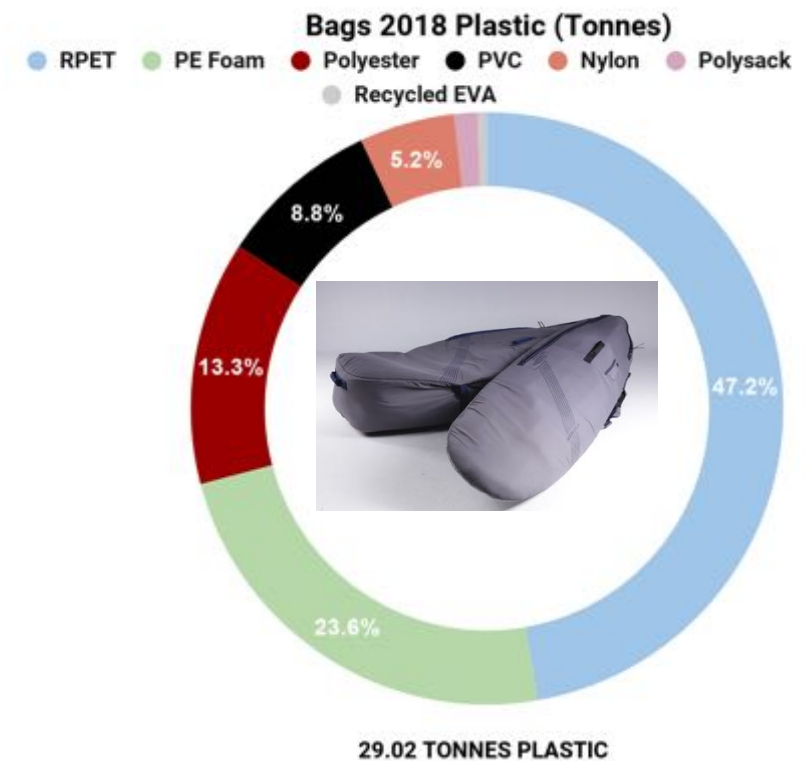
## Comparisons of Fins

<b>Fins 2018</b>	<b>Bioresin</b>	<b>Akulon</b>	<b>Epoxy</b>
Light core center fins	0.14		
Light core side fins	0.07		
Injection molded center fins		1.02	
Injection molded side fins		0.81	
FCS		0.64	
Daggerboard fins (windsurf)			0.09
Windsurf fins			0.9
Total	0.21	2.47	0.99

<b>Fins 2019</b>	<b>Bioresin</b>	<b>Akulon</b>	<b>Epoxy</b>
Light core center fins	0.14		
Light core side fins	0.07		
Injection molded center fins		1.02	
Injection molded side fins		0.81	
FCS		0.64	
Daggerboard fins (windsurf)			0.58
Windsurf fins			0.9
Total	0.21	2.47	1.48

- 0.49 tonnes of Epoxy using for windsurf fin increased in 2019 ↑

Board Bags



## Comparisons of Board Bags

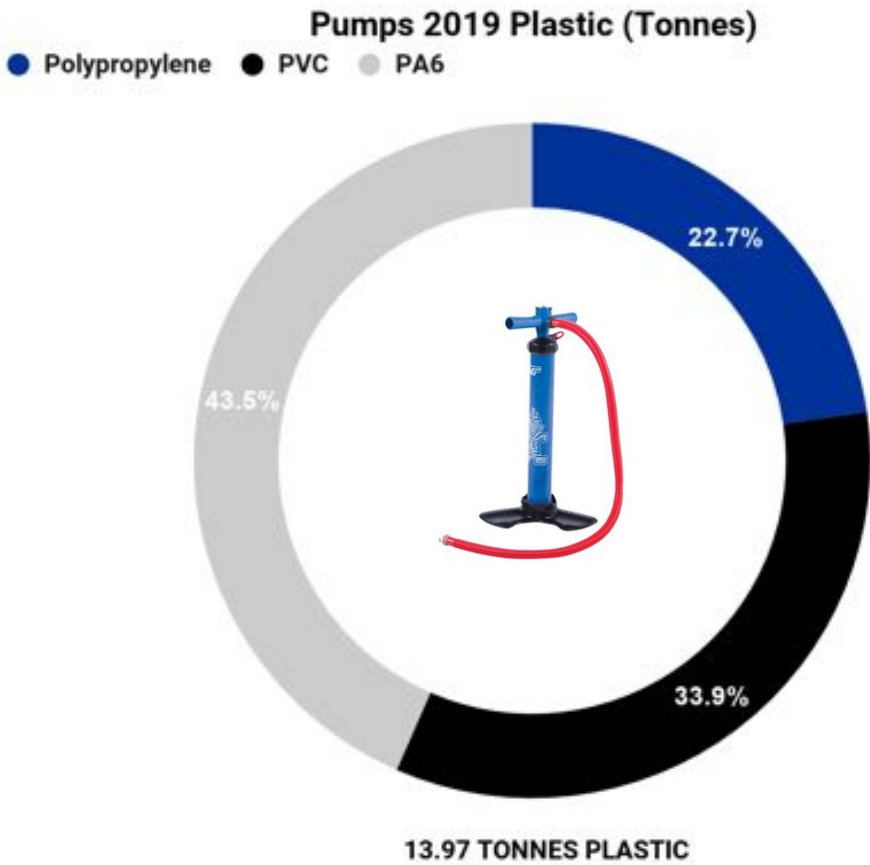
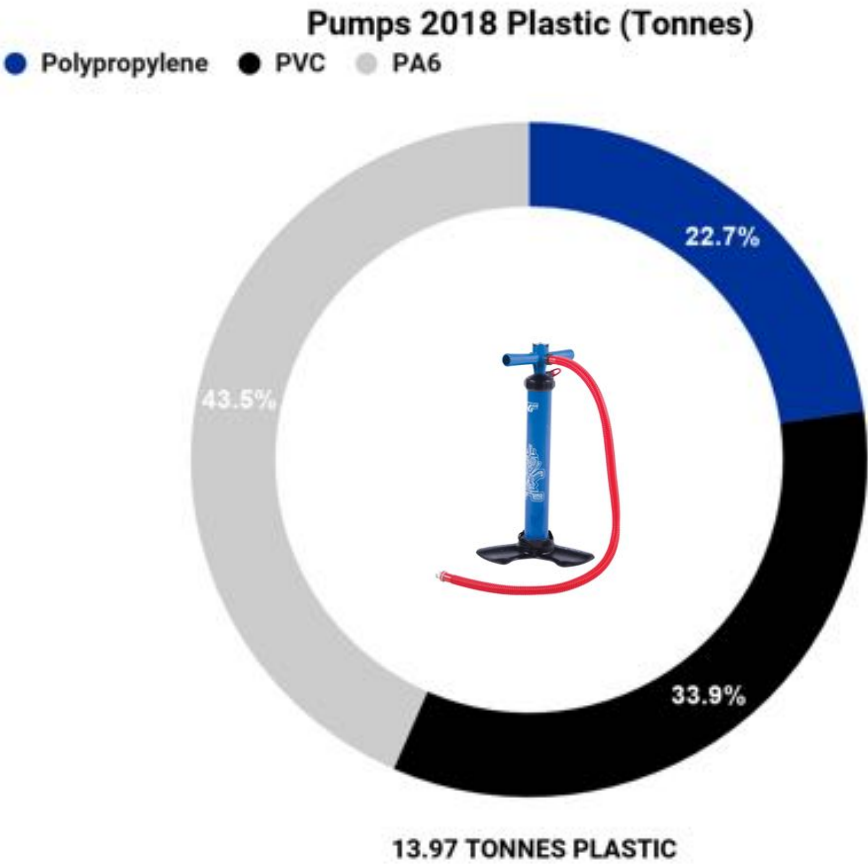
Bags - Tonnes Of Plastic 2018							
	RPET	PE Foam	Polyester	PVC	Nylon	Polysack	Recycled Eva
Windsurf Board Bags	0.95	0.71	0.36			0.36	
Sup Composite Bags	1.49	1.29	0.49	0.1	1.49	0.01	0.15
Inflatable Bags	10.9	4.86	2.89	2.1			
Other Bags	0.37		0.13	0.35	0.02		
Total	13.71	6.86	3.87	2.55	1.51	0.37	0.15

Bags - Tonnes Of Plastic 2019							
	RPET	PE Foam	Polyester	PVC	Nylon	Polysack	Recycled Eva
Windsurf Board Bags	1.13	0.84	0.42			0.42	
SUP Composite Bags	2.10	1.83	0.68	0.14	2.10		0.21
Inflatable Bags	10.53	4.70	2.80	2.00			
Other Bags	0.22		0.08	0.32			
Total	13.98	7.38	3.98	2.46	2.10	0.42	0.21

- 0.27 tonnes of RPET increased in 2019 ↑
- 0.11 tonnes of Polyester increased in 2019 ↑
- 0.09 tonnes of PVC reduced in 2019 ↓
- 0.52 tonnes of PE foam increased in 2019 ↑
- 0.59 tonnes of Nylon increased in 2019 ↑
- 0.06 tonnes of Recycled EVA increased in 2019 ↑
- 0.05 tonnes of Polysack increased in 2019 ↑
- In 2019, changes in Bags gave a total plastic increase of 1.51 tonnes ↑



Pump



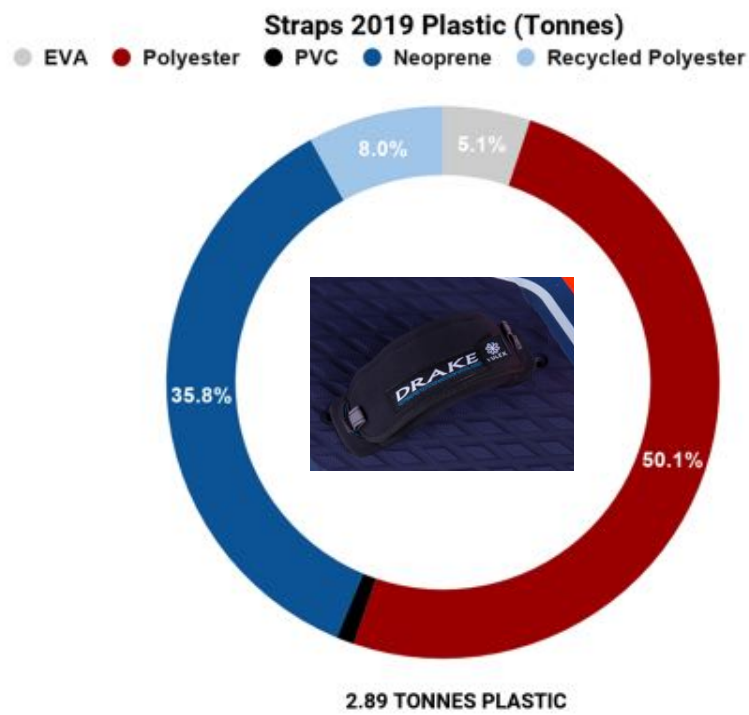
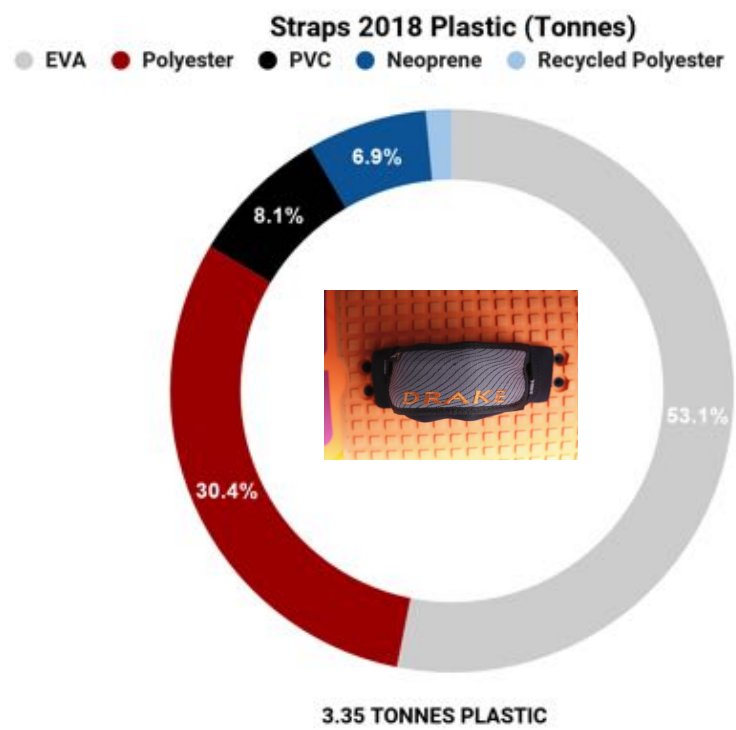
## Comparison of Pumps

<b>Pumps - Tonnes Of Plastic 2018 tonnes</b>			
	<b>Polypropylene</b>	<b>PVC</b>	<b>PA6</b>
One Piece Pump	3.17		2.49
Deluxe Pump		4.73	3.58
Total	3.17	4.73	6.07

<b>Pumps - Tonnes Of Plastic 2019 tonnes</b>			
	<b>Polypropylene</b>	<b>PVC</b>	<b>PA6</b>
One Piece Pump	3.17		2.49
Deluxe Pump		4.73	3.58
Total	3.17	4.73	6.07

No changes.

Strap



## Comparisons of Straps

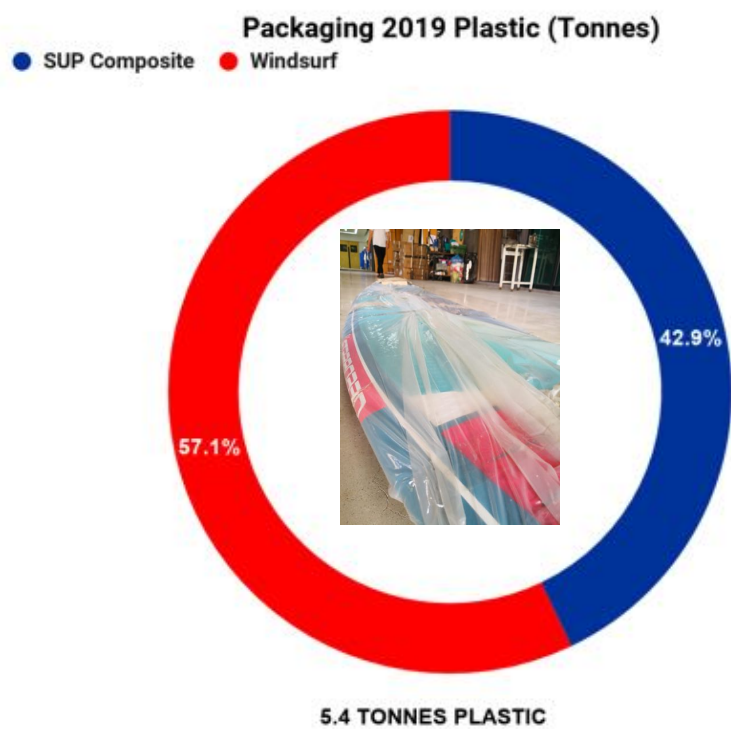
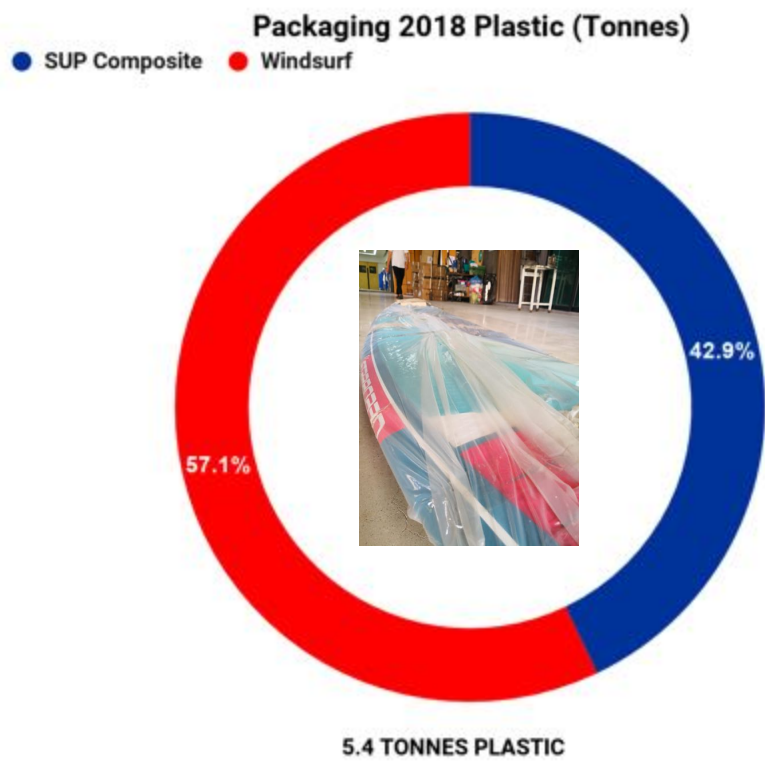
Straps 2018	
Straps 2018	Tonnes
EVA	1.78
Polyester	1.02
PVC	0.27
Neoprene	0.23
Recycled Polyester	0.05
Total	3.35

Straps 2019	
Straps 2019	Tonnes
EVA	0.15
Polyester	1.45
PVC	0.03
Neoprene	1.04
Recycled Polyester	0.23
Total	2.89

- 1.63 tonnes of EVA reduced in 2019 ↓
- 0.43 tonnes of Polyester increased in 2019 ↑
- 0.24 tonnes of PVC reduced in 2019 ↓
- 0.81 tonnes of Neoprene increased in 2019 ↑
- 0.18 tonnes of Recycled polyester has increased in 2019 ↑
- In 2019, changes in Straps gave a total plastic decrease of 0.46 tonnes ↓

Packaging

Board packaging



## Comparison of Packaging

<b>Plastic 2018</b>	<b>Recycled Hdpe/Ldpe Mix (Tonnes)</b>
SUP Composite	2.3
Windsurf	3.1

<b>Plastic 2019</b>	<b>Recycled Hdpe/Ldpe Mix (Tonnes)</b>
SUP Composite	2.3
Windsurf	3.1

No changes.

## Apparel Packaging

In 2017, Starboard switched to using paper and cardboard instead of plastic packaging.

Apparel



**Men's T-Shirt 2018 Plastic (tonnes)**

● Recycled Polyester



**0.65 TONNES PLASTIC**

**85% RPET**  
**15% Cotton T-shirt**



Comparison of Apparel

**Apparel - Tonnes Of Plastic 2018**

<b>Apparel 2018</b>	<b>Polyester</b>	<b>Recycled Polyester</b>	<b>Spandex</b>	<b>Rayon</b>
Men's Water Shirt Long Sleeve	0.05			
Men's Water Shirt Short Sleeve	0.04			
Men's Water Shirt No Sleeve	0.05			
Women's Water Shirt No Sleeve	0.02			
Men's Lycra Long Sleeve	0.20		0.04	
Men's Lycra Short Sleeve	0.08		0.02	
Women's Lycra Long Sleeve	0.06		0.01	
Kids Lycra Long Sleeve	0.05		0.01	
Men's Original Boardshorts		0.26	0.03	
Women's Boardshorts		0.05	0.01	
Kids Boardshorts		0.04	0.01	
Women's Superstar Boardshorts		0.05	0.01	
Kids Superstar Boardshorts		0.01	0.00	
Men's Hybrid Boardwalks	0.14		0.01	
Men's Walkshorts	0.06		0.00	0.03
Women's Race Tights	0.06			
Men's T-Shirt		0.65		
Women's T-shirt		0.08		
Kids T-shirt		0.06		
Men's Zip Hoodie		0.12		
Women's Zip Hoodie		0.04		
Men's Cap	0.11			
Men's Cap Recycled Polyester		0.11		
Women's Cap	0.07			
<b>Total</b>	<b>0.98</b>	<b>1.44</b>	<b>0.15</b>	<b>0.03</b>

### Apparel - Tonnes Of Plastic 2019

Apparel 2019	Polyester	Recycled Polyester	Spandex	Nylon
Men's Water Shirt Long Sleeve	0.05			
Men's Water Shirt Short Sleeve	0.04			
Men's Water Shirt Sleeveless	0.02			
Women's Watershirt Sleeveless	0.01			
Men's Lycra Long Sleeve			0.04	0.13
Men's Lycra Short Sleeve			0.02	0.05
Women's Lycra Long Sleeve			0.02	0.04
Kids Lycra Long Sleeve			0.01	0.02
Men's Original Boardshorts		0.11	0.01	
Women's Original Boardshorts	0.02		0.00	
Kids Boardshorts		0.01	0.00	
Women's Sonni Bordshorts		0.01	0.00	
Men's Hybrid Boardwalks	0.07		0.01	
Women's Race Tights			0.01	0.03
Men's T-Shirt				
Women's T-shirt				
Kids T-shirt				
Men's Zip Hoodie				
Women's Zip Hoodie				
Men's Cap		0.07		
Women's Cap		0.03		
Men RPET Cap		0.07		
Poncho				
Total	0.22	0.31	0.12	0.27

- 0.76 tonnes of Polyester reduced in 2019 ↓
- 1.13 tonnes of Recycled polyester reduced in 2019 ↓
- Nylon replaced Rayon in 2019
- 0.03 tonnes of Spandex reduced in 2019 ↓
- Recycled Polyester mix with cotton replaced by organic cotton
- In 2019, changes in Apparel gave a total plastic decrease of 1.69 tonnes ↓

## Final Material Totals

Materials	2018 Tonnes	2019 Tonnes	Difference Tonnes	Difference %
ABS		4.04	-4.04	100
ABS 50%		0.25	-0.25	100
Acetal		0.58	-0.58	+100
Akulon	17.40	4.10	13.30	76.44
Bioresin	43.17	4.07	39.10	90.57
Epoxy	2.23	6.31	-4.08	-182.96
EPS	42.03	43.19	-1.16	-2.76
EVA	2.43	10.08	-7.65	-314.81
GreenPoxy		13.84	-13.84	100.00
Hardener	4.04	4.58	-0.54	-13.37
Neoprene	0.26	1.40	-1.14	-438.46
Nylon	1.51	2.63	-1.12	-73.87
Nylon 50%		0.25	-0.25	100
Nylon 50%+ABS 50%		0.50	-0.50	100
PA6	1.48	4.04	-2.56	-172.97
PE Foam	6.33	7.38	-1.05	-16.51
Polyester	28.11	34.32	-6.21	-22.09
Polypropylene	3.17	0.25	2.92	92.11
Polysack	0.36	0.42	-0.06	-17.28
Polyurethane	6.60	5.14	1.46	22.12
PU foam		0.22	-0.22	100
PVC	85.71	67.90	17.81	20.78
Rayon	0.03	0.27	-0.24	-787.18
Recycled ABS	15.89	0.33	15.56	97.92
Recycled EVA	14.37	3.03	11.34	78.91
Recycled HDPE	0.81	1.12	-0.31	-37.65
Recycled Hdpe/Ldpe Mix	5.43	5.40	0.03	0.55
Recycled Polyester	1.49	0.54	0.95	63.76
Resin	0.99	10.01	-9.02	-911.11
RPET	13.71	13.98	-0.27	-1.94
Spandex	0.16	0.12	0.04	24.87
TPU	0.41	0.53	-0.12	-28.78
T10		0.84	-0.84	100
Total	298.12	251.63	46.49	15.59

\*Excluding rubber

## Conclusion

In 2019, Starboard used 251.63 tonnes of plastic to manufacture products compared to the 298.12 tonnes used in 2018. The decrease between the two years is 46.94 tonnes (18.47% decrease), this is due to the quantity of products sold in 2018 & 2019.

There are many types of plastics used in the production of boards, accessories, and apparel. Starboard consistently aims to reduce the use of plastic by using alternative materials. Our current mission is to find a way to recycle the material from the boards which have reached their very end of life. Once we find a way to recycle these materials, we want to ensure they are being recycled into usable products reducing or removing the need for virgin plastic materials.

As we work on reducing our virgin plastic use, we have good improvement in the use of recycled material and bio materials.

- **Reduce and Recycle.**

Every day at our headquarters we work to minimize the materials used and recycle as much as we properly can. This is not only for our workshop but also for employees, this includes working with organisations who recycle materials that are not typically recycled at local facilities. Such as; Tetra Packs, Bottle Caps, Receipts, Calendars, and compost.

- [Upcycled PET Material](#)

Both composite and inflatable board bags are made from ultra-strong “Waste2Wear” fabric. On average, at least 10 waste bottles per meter fabric used and 55 recycled bottles make 1 typical board bag. In 2019 Starboard repurposed 634,920 bottles for board bags, representing 64,392 square meters of fabric for our board bag production. Using Waste2Wear Material reduces CO2 by 50.3%. It must be noted that there is no virgin plastic used in this fabric too.

- Armafoam PET

Starboard has been using high-density Armafoam PET made by recycled plastic bottles.

RPET has a significantly lower carbon footprint which is 33% less than virgin PET, 56% less than PVC foam and no additional fossil fuel is being extracted.

- Armacore fins

Armacore fins are designed for high performance; offering a fine-tuned flex made at a very light weight. The flex allows power to be stored and released to drive through turns in the waves, while the stiffness on flat-water delivers solid tracking and control.

Armacore fins are available with Blue Carbon, Pine Tek, Starlite Pro and Starlite Hypernut as centre and side fins. All other Starlite boards feature this tech only in the critical centre fin.

All Armacore fins are currently made with plant-based bio-resin. However, we are working towards switching to a revolutionary bio recyclable epoxy resin that can be recycled to recover and reuse all of the materials without resorting to the use of new virgin materials. This new groundbreaking resin is a sustainable solution for closed-loop recycling and will contribute to the creation of a circular economy. In essence, the fin can be dipped in a solution for 2 – 3 hours, during which the resin, the core and the fibre reinforcements separate. These can then be partly reused to generate new fins or create further bioproducts such as plastic injected parts like foot strap inserts. The system has been listed for an Award and has the potential to change eventually the entire industry's outlook on how way moulds, tooling, boards and fins can be recycled.

**Advantages of Armacore:**

- Made with recycled plastic bottles that would otherwise enter a landfill or worse, the oceans.
- Requires less energy than traditional recycling, saving CO2 emissions overall.
- Reduces the dependence on using virgin materials as the materials can be reused or regenerated into new bioproducts.
- Epoxy thermosets are high-performance polymers with superior mechanical strength.
- In the near future, we hope to switch to use the new recyclable resin that allows the recovery and recycling of thermoset composite, unlike conventional thermoset plastics which are non-recyclable.

- [Akulon](#)

Royal DSM and Starboard have been working on a project to collect and upcycle discarded fishing nets to Akulon Repurposed.

Starboard uses this nylon material for fins, pumps and insert boxes. In doing so, the collaboration supports litter-free beaches, a healthier marine environment and creates a positive social impact for local communities in India. Read more [here](#).

In the spirit of sharing success , the initial press release at Reuters had a potential view of 345 million.

- **Sicomin Bio based Resin**

Sicomin bio based Epoxy Resin is developed with up to 35% carbon content from plant origin.

Starboard has chosen a product that combines high efficiency with the use of renewable feedstock, decreasing carbon dioxide emissions and toxicity in the work environment.

- **Organic cotton replaces Rayon in all T-shirts:**

1. Grown and processed without toxic chemicals
2. Better for human health and the environment
3. Reduces pollution caused by the use of pesticides in conventional cotton farming
4. Prevents water contamination and conserves biodiversity
5. No plastic microbeads ending up in the ocean

- **Yulex natural rubber**

Yulex is a natural solid rubber from FSC®-certified forests .During the 2019 season, all windsurf boards come with the Yulex foot strap covers.

Patagonia has been a pioneer both in Organic cotton and Yulex, [here](#) is what they say about Yulex.

## End Notes

Starboard will continue to work to best possible practices, to protect the beauty of nature. We also share well proven proactive environmental strategies with our customers, other companies, governments and the United Nations which we are partners with.

The annual global average ocean plastic pollution per person is 1.1 kg and we collect 1.1 kg Beach Ocean plastic for each of our boards through the POP initiative.

The average CO2 emission per board we sell is below 100 kg CO2 and through our climate park initiative every board is becoming 10 x Climate Positive or more.

**Our Company is 10 x Climate Positive Company approach.**

Starboard has a Carbon Past positive approach with its support of Blue Carbon Climate parks and is going back to draw down its emissions since 1994.

As Chief innovator Svein Rasmussen and the Starboard eco team says,

*“Lets have loads of fun and never give up!”*

Read more about our Carbon Footprint [here](#).