

Volvo Cars Recycled Plastics Ambition 2025



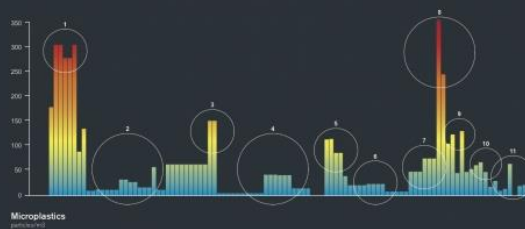
Andreas Andersson, Environmental Attribute & Material Management, R&D

VOLVO OCEAN RACE



Volvo Ocean Race 2017-18

Microplastics Data



- 1. North Atlantic Ocean and Mediterranean Sea:** The highest microplastics levels were attributed to the proximity to the coast, strong ocean currents and near-shipping routes.
- 2. Atlantic Ocean:** Progressing south, levels decreased with distance from land, with a relative increase closer to South America, an area with strong surface currents.
- 3. South African coast:** The higher levels of microplastics near Cape Town partly originated further north as the strong Agulhas Current flows from the southern Indian Ocean and past the South African coast.
- 4. Indian Ocean:** Microplastics levels as high as 41 particles/m³ were in three remote areas as wind drove currents originating further north.
- 5. Australian coast:** Increased microplastics concentrations due to proximity to coastline & relative comparison by currents from the northern Indian Ocean/Vietnam.
- 6. From Melbourne to Hong Kong:** Levels decreased in the open water areas off Hainan and the Johnson Islands where the steady eastward currents were the primary cause.
- 7. Philippine Sea:** Levels of 75 particles/m³ may be due in part to proximity of particle distribution to higher levels were recorded in a more remote sample from the area.
- 8. South China and North Philippine Sea:** The high levels of 252 and 240 particles/m³ were in an area coinciding with the Kuroshio current which feeds into the North Pacific Subtropical Gyre.
- 9. Equatorial Pacific:** Average levels were as high as 118 particles/m³ in the open water of the Pacific and 120 particles/m³ passing north of Hawaii. Prevailing currents have a significant impact in microplastics distribution in the region.
- 10. Approach to New Zealand:** Progressing south through the Coral Sea the concentration increased from 45, 56, 56 to 60 particles/m³ in the lee of the New Zealand coast.
- 11. Leg 7:** Remote Pacific near Punt Hemis. Microplastics levels of 8-20 particles/m³ in an area further from land than anywhere else on Earth. Cape Horn: Off the southernmost tip of South America 07 particles/m³ were recorded. South America west coast: Samples contained 0-13 particles/m³.

Microplastics Data provided by Dr King, Steve Robinson and Dr Tanya, Tanya, 2018/04/04. Data collected by the Volvo Ocean Race.

#VolvoCarsBeachCleanup



V O L V O

The Recycled Plastics Demo Car



V O L V O



Short
film

V O L V O

COMPONENTS & MATERIALS IN THE DEMO CAR



- 170 components
- 60 kg recycled material
- 44 suppliers

Materials:

- PP
- ABS
- PC+ABS
- PA
- PET
- PUR



TEXTILES



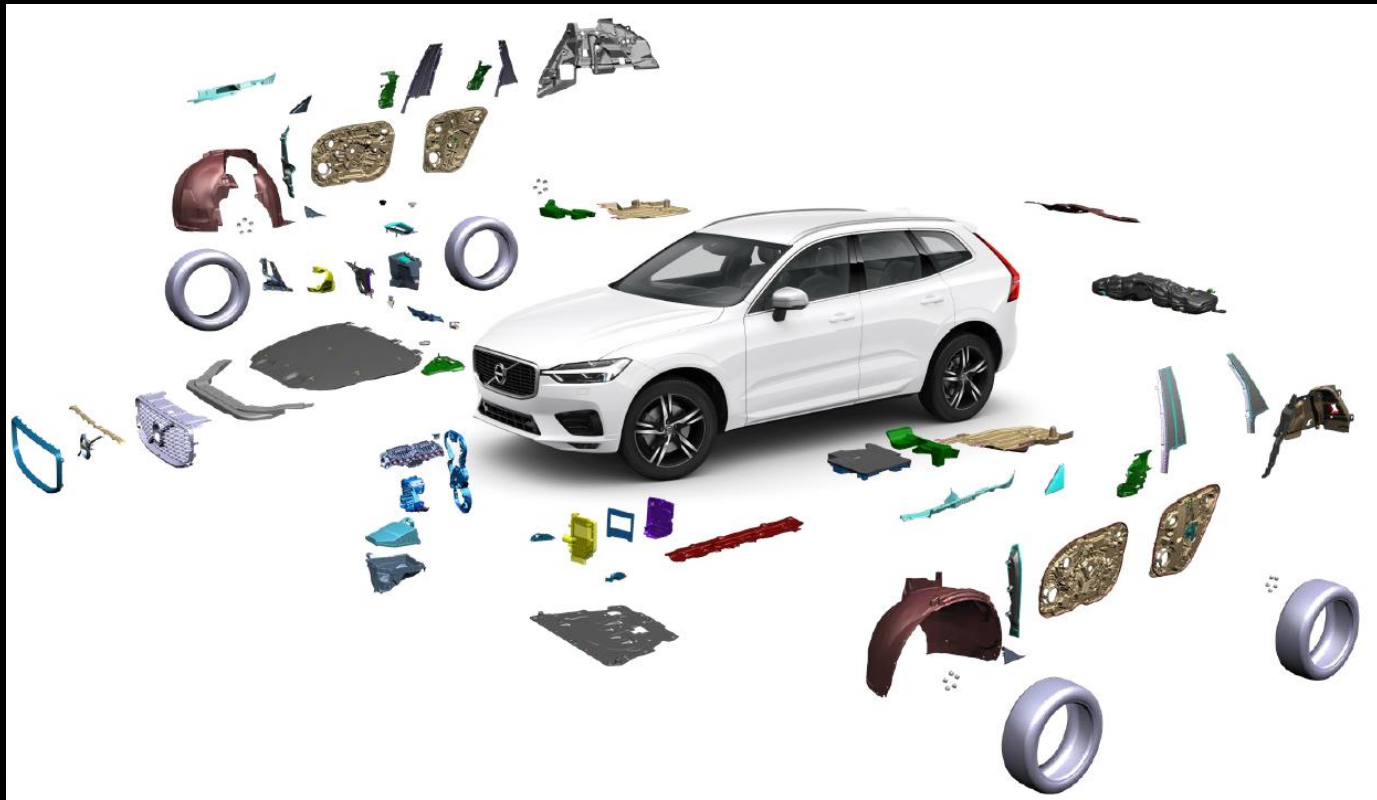
V O L V O

INTERIOR



V O L V O

EXTERIOR



V O L V O

VOLVO CARS AMBITION

Aiming for 25%
recycled plastics in all
new launched
vehicles from 2025



TYPES OF RECYCLED MATERIALS



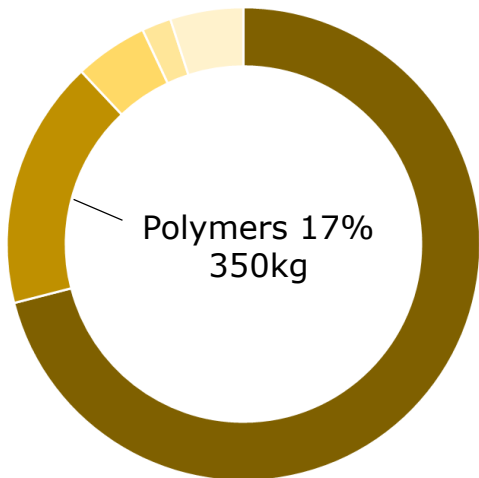
- Post-Consumer Recyclates (PCR)
- Post-Industrial Recyclates (PIR)
- NOT Home Scrap



MATERIAL BREAKDOWN

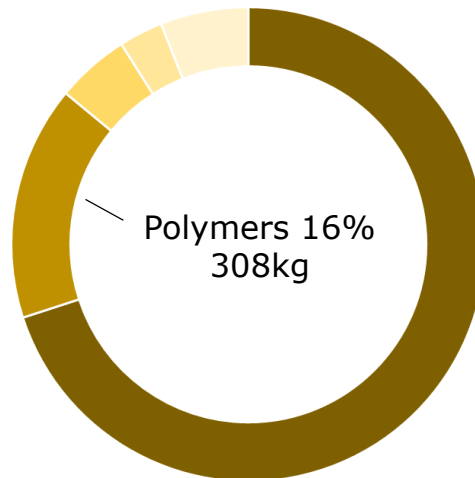


XC90



■ Metals ■ Polymers ■ Elastomers ■ Glass ■ Other

XC60



■ Metals ■ Polymers ■ Elastomers ■ Glass ■ Other

CHALLENGES AND OPPORTUNITIES WITH RECYCLED PLASTICS



- Quality, quantity and price
- Availability on all markets
- Chemical substance regulations





ON-GOING ACTIVITIES

- Direct collaboration with material suppliers
- RFI (Request for Information)
- Sourcing of future car models
- Continued testing and verification of recycled plastics parts

NEXT STEPS



- Research projects - internally and externally
- Simulation data
- Ramp-up to mass production
- Closed loop recycling
- Common definitions



EU STRATEGY RECYCLED PLASTICS



- 10 million tons recycled plastics 2025
- Pledging campaign for automotive
- Target is 1 million tons



Brussels, 16.1.2018
COM(2018) 28 final

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL
COMMITTEE AND THE COMMITTEE OF THE REGIONS

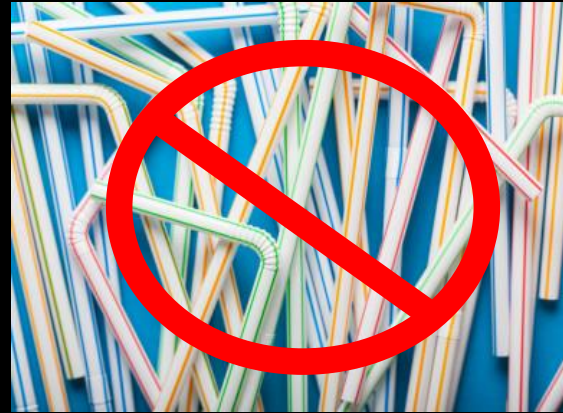
A European Strategy for Plastics in a Circular Economy

{SWD(2018) 16 final}

AMBITION

**Volvo Cars to remove
single-use plastics
from all offices,
canteens and events
by end of 2019**

- 20 million items/year
- 500 items per employee/year



AMBITION

Aiming for 25%
recycled plastics in
packaging solutions
2025





Collaboration,
-is the Key !

"Sustainability is no longer a box ticking exercise, but business critical, it's a significant commercial opportunity for those companies that get it right."

"Our customers want safer, more sustainable and convenient cars. We can meet that demand, be a force for change and grow our business at the same time."

Håkan Samuelsson
President & CEO





THANK YOU

andreas.g.andersson@volvocars.com

tina.carvid@volvocars.com

V O L V O