From bottle to fabric: Seat upholstery made of PET

- New Audi A3 with sustainable interior concept
- Up to 45 PET bottles with a capacity of 1.5 liters used per seating system
- Many additional components made from secondary raw materials

Ingolstadt, February 25, 2020 – The fashion industry produces jewelry, clothes and bags from PET bottles. In addition, more and more furniture is being made from waste material such as paper shreds, plastic bottles and wood chippings. Audi is now offering seat upholstery made from recycled material for the new A3 for the first time.

Sustainability is a central pillar in the Audi corporate strategy. This applies to technology as well as to the production processes. Seat upholstery made from secondary raw materials are being used for the first time in the fourth generation of the Audi A3. Up to 89% of the textile used consists of recycled PET bottles, which are transformed into yarn in an elaborate procedure. This results in fabrics that guarantee the same quality standards in terms of look and feel as conventional textile upholstery.

Turning the old into the new
The bottle disappears in the hole of the reverse vending machine, and the customer in Germany gets €0.25. But what happens then? While still in the shop, the disposable bottles are compressed for truck transport in order to save space. Once they have arrived at the recycling plant, they are sorted by color, size and quality. Foreign matter such as the caps are separated. A mill then crushes the bottles into flakes, which are washed, dried and melted down. Nozzles shape continuous plastic strands out of the mass. Once they have dried, a machine chops them into small pieces. This results in granulate, otherwise known as recyclate, and this undergoes extrusion to create threads. Wound onto coils, these are used in the final stage to manufacture materials.
More than 100 PET bottles in a single A3
All in all, up to 45 PET bottles with a capacity of 1.5 liters are used per seating system. On top of this, an additional 62 PET bottles were recycled for the carpet in the new Audi A3. Other components in the interior are also increasingly made of secondary raw materials, e.g. insulating materials and absorbers, the side panel trims of the luggage compartment, the loading floor and the mats. The goal is clear: The percentage of recycled material in the Audi fleet is to rise considerably in the coming years. In the process, the premium brand will continue to offer its customers products with the high level of quality that they are used to.

At present, the seat upholstery is not yet made completely of recyclable material. “The lower layer of woven material, which is connected to the upper material with adhesive, is what poses the challenge. We are working on replacing this with recyclable polyester,” says Ute Grönheim, who is in charge of material development in the textiles division at Audi. “It is our goal to make the seat upholstery completely from unmixed material so that it can be recycled again. We are no longer very far away from this.” In the long term, all seat upholstery across all model series will be made of recycled material.

Three recycled covers on offer
There are three different material designs for the Audi A3; they have an up to 89% share of recycled material. One of these is the steel gray material “Torsion” for the design selection on which yellow contrasting stitching creates visual highlights. In addition, the material “Puls” is available. In the S line, it features the black and silver color combination and is accentuated by rock gray contrasting stitching. Later on, it follows in black and red with contrasting stitching. In the equipment line in question, these designs form the basic offering and can be combined with side bolsters made of artificial leather.

A video showing the production process of PET fabric will be available at Audi MediaTV soon.

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In 2019, the Audi Group delivered to customers about 1.846 million automobiles of the Audi brand, 8,205 sports cars of the Lamborghini brand and 53,183 motorcycles of the Ducati brand. In the 2018 fiscal year, AUDI AG achieved total revenue of €59.2 billion and an operating profit before special items of €4.7 billion. At present, approximately 90,000 people work for the company all over the world, more than 60,000 of them in Germany. Audi focuses on sustainable products and technologies for the future of mobility.