



The new Audi Q5

Life Cycle Assessment



Audi Q5 – the life cycle assessment



Audi has compiled a detailed life cycle assessment for the new Audi Q5. One of the bestselling models of the previous model series, the Audi Q5 2.0 TFSI quattro 169 kW tiptronic (fuel consumption combined: 7.5 – 7.2 l/100 km; CO₂ emissions combined: 174 – 168 g/km; hereinafter: predecessor), was compared with its counterpart in the new model series, the Audi Q5 2.0 TFSI quattro 185 kW S tronic (fuel consumption combined: 7.1 – 6.8 l/100 km; CO₂ emissions combined: 162 – 154 g/km; hereinafter: new Audi Q5).

Thanks to an intelligent choice of materials and enhanced lightweight construction measures, the new Audi Q5** is 50 kg lighter than its predecessor*.

What effect the changes in weight – and also in the material mix and engine efficiency – have on the life cycle assessment is described and explained in more detail on the following pages.

Fuel consumption and emission values:

* Audi Q5 2.0 TFSI quattro 169 kW tiptronic (predecessor):

fuel consumption combined: 7.5 – 7.2 l/100 km; CO₂ emissions combined: 174 – 168 g/km

** Audi Q5 2.0 TFSI quattro 185 kW S tronic (new Audi Q5):

fuel consumption combined: 7.1 – 6.8 l/100 km; CO₂ emissions combined: 162 – 154 g/km

Fuel consumption and CO₂ emission figures given in ranges depend on the tyres/wheels used.

Audi Q5 – quattro drivetrain



Audi Q5 – the materials

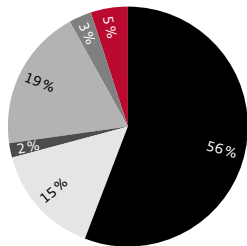
The materials that are used have a major influence on the results of the life cycle assessment. For example, more energy is consumed when producing light metals such as aluminium and magnesium than for steel; this has the effect of increasing greenhouse gas emissions during their production phase.

The inventory of materials was determined for the models under examination and summarised according to VDA classification 231-106.

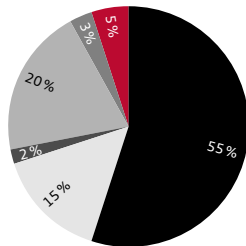
There are virtually no changes in the material inventory between the two analysed models. Solely the proportion of steel and ferrous materials has been reduced on the new Audi Q5** by one percentage point. In return, the proportion of polymers and process polymers has been increased to the same extent. There are, however, more substantial changes within the category for steel/ iron. In the new Audi Q5**, for instance, ultra high-strength steel alloys and hot-formed, hot-stamped steels have been used more extensively.

Material inventory of the analysed models

**Audi Q5 2.0 TFSI quattro 169 kW
tiptronic (predecessor)***



**Audi Q5 2.0 TFSI quattro 185 kW
S tronic (new Audi Q5)****



- 1. Steel/Iron
- 2. Light metals
- 3. Non-ferrous
- 4. Special purpose metals
- 5. Polymers
- 6. Process polymers
- 7. Other materials
- 8. Electronics/electrics
- 9. Fuels and auxiliary means

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Audi Q5 – the results of the life cycle assessment

Over its entire life cycle, the new Audi Q5** causes three fewer tonnes of greenhouse gas emissions than its predecessor*, which represents a reduction of around six percent.

Thanks to the intelligent choice of materials and the reduction in weight, Audi engineers succeeded in lowering greenhouse gas emissions during the production – despite lightweight construction measures. The predecessor of the Audi Q5* generated around 8.7 tonnes of greenhouse gas emissions in the production phase, whereas it was possible to reduce greenhouse gas emissions during the production of the new Audi Q5** around two percent to 8.6 tonnes. Over its entire life cycle, the predecessor* generates some 50 tonnes of greenhouse gas emissions, the new Audi Q5** around 47 tonnes.

In other categories too, it was possible to reduce the new Audi Q5`s** impact on the environment. The acidification, the eutrophication and the ozone depletion potential were reduced by four percent and the photochemical ozone (summer smog) creation potential by two percent.

Reduction in all the assessed effect categories

Greenhouse gas potential	- 6 %
Eutrophication potential	- 4 %
Ozone depletion potential	- 4 %
Photochemical ozone creation potential	- 2 %
Acidification potential	- 4 %

Fuel consumption and emission values:

* Audi Q5 2.0 TFSI quattro 169 kW tiptronic (predecessor):

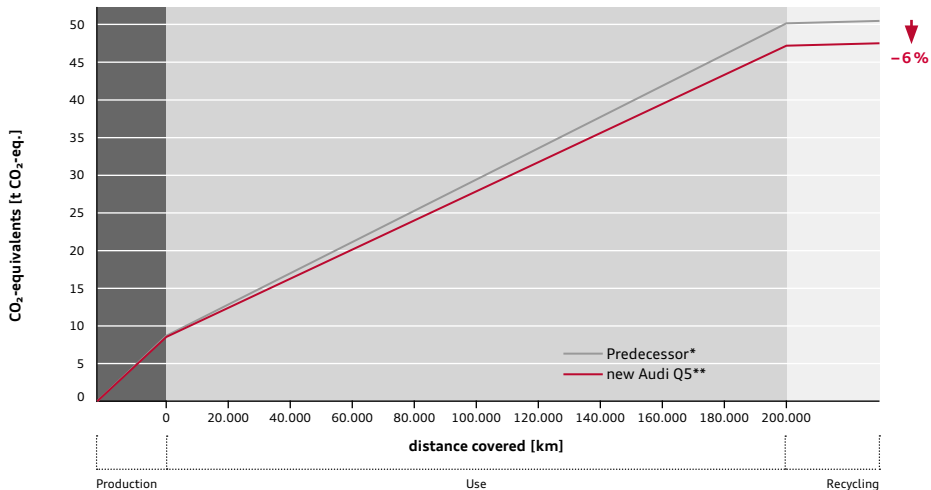
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Greenhouse gas emission values for the entire life cycle of the Audi Q5



Greenhouse gases were reduced even in the production phase of the new Audi Q5**.

Conclusion

The public today tends to judge vehicles to a large extent by their fuel consumption. Here too, Audi looks one step ahead. Its life cycle assessment analyses effects on the environment for the vehicle's entire lifetime. The use of sustainable materials and manufacturing processes can greatly reduce these effects.

The life cycle assessment prepared by Audi for the new Audi Q5** shows that the new model has improved in all of the environmental categories compared with the predecessor model*. Thanks to optimised materials, Audi engineers have succeeded in not only reducing the weight of the vehicle further, but also in reducing the environmental impact as early as in the production phase in all of the categories analysed.

These results demonstrate that Audi is on the right track towards sustainable and resource-conserving mobility.

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Further information on official fuel consumption figures and the official specific CO₂ emissions of new passenger cars can be found in the 'Guide on the fuel economy, CO₂ emissions and power consumption of all passenger car models', which is available free of charge at all sales dealerships and from DAT Deutsche Automobil Treuhand GmbH, Helmuth-Hirth-Str. 1, 73760 Ostfildern-Scharnhausen, Germany (www.dat.de)

This information brochure is intended for the German market. All details on the vehicles and technical data apply to the features of the German market.