

The advantages of a modular door concept result in a significant customer advantage, particularly in view of the drastic cost savings as compared to a conventional door construction.



The Modular Door
Attaching of the door seal



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The Modular Door

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Innovation



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Automotive



The modular door emerged from an R&D project

...with the objective to find an alternative to gluing a door seal. The use of dirt-repellent paints in auto body manufacturing would make gluing on doors impossible.



By separating the inside and the outside module, it is now possible to attach the seal to the inner module.

The positive effects

Reduction of draw depth

By separating the door into two modules, draw depths could be drastically reduced.

Ideal for the use of advanced steels

The use of advanced steels is made possible by the drastically improved forming characteristics.

Suitable for the use of aluminum

Just like with the use of advanced steels, the use of aluminum in part or entirely is possible.

Weight optimization

Due to the concept, but also owing to use of advanced steels, the weight of the BIW door can be reduced by up to 1.2 kilos.



Stiffness optimization

Stiffness can be improved by more than 60% through optimization of the inner door panel and the use of advanced steels.

Assembly optimization

Optimal accessibility for powertrain assembly is ensured as the outer module is not yet installed at the time of assembly.

Design Flexibility

Various styling versions are realized easily and inexpensively by assembling various outer modules to the inner module.

Model Flexibility

On the other hand, it is just as easily possible to realize passenger car or station wagon models (for rear doors) by attaching the corresponding inner modules to the same outer module.

Cost Savings

Body-in-White construction is significantly simplified by integrating various reinforcement components in a part. Combined with the optimized powertrain assembly, this has a positive impact on piece cost and equipment investment. In addition, costs for door sealing are significantly reduced as the expensive adhesive film and gluing process are completely eliminated.

Purchase by Module or complete

It is possible to purchase a complete door (including all attachments and trims) without the difficulties of color matching and tolerance adjustment. This eliminates the equipment investment for the car manufacturer.