TREASURI2 is an Autoneum software solution that allows the Finite Elements (FE) simulation of acoustic trim components containing porous materials. Using standard MSC NASTRAN cards and procedures, TREASURI2 can set-up, solve and post-process vehicle FE models that include trim parts with porous materials.

It is used to predict noise levels in the passenger compartment (full vehicle acoustics) mainly for structure-borne noise in the low- and mid-frequency range.

Thanks to its modular structure, TREASURI2 has also been integrated in the software GOLDTrim for the optimization of sound package together with damping package and appropriate body panel shapes for structure-borne noise.
Autoneum. Mastering sound and heat.

**Autoneum’s solution for the optimization of vehicle body structure and acoustic trim**

Autoneum has developed a complete tool portfolio that addresses the state-of-the-art in the field of CAE for vibro-acoustics, focusing on body vibration and acoustic trim performance. Our tools predict and optimize NVH in the concept phase to provide our customers with cost-effective solutions and reduced lead times.

**GOLD** is a unique simulation tool for the simultaneous optimization of the damping package and vehicle body panel shape. It is based on a standard MSC NASTRAN solution.

**TREASURI2** allows the Finite Elements (FE) simulation of acoustic trim components containing porous materials, thanks to its full integration into MSC NASTRAN.

As an extension of GOLD and TREASURI2, the new simulation concept **GOLDTrim** features not only the optimization of the damping package (damper pads location, weight, size and material) together with appropriate body panel shapes, but also the optimization of the sound package for dash insulators or carpet insulation systems.

The acoustic trim, the damping package and the body panel shape can be optimized with respect to interior SPL improvement and weight reduction.

Interior SPL improvement up to 600 Hz with sound package weight reduction under structure-borne excitation.

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