

Title (en)  
Soundproofing assembly with a thin film for an automobile vehicle, and associated automobile vehicle

Title (de)  
Schalldämmsystem mit dünner Folie für Kraftfahrzeug, und entsprechendes Kraftfahrzeug

Title (fr)  
Ensemble d'insonorisation avec film fin pour véhicule automobile, et véhicule automobile associé.

Publication  
**EP 2159786 B1 20130605 (FR)**

Application  
**EP 09168240 A 20090820**

Priority  
FR 0855694 A 20080825

Abstract (en)  
[origin: EP2159786A1] The sound insulation assembly (10) comprises a spring layer (14) having elastic and porous base to be placed against a surface (12) of the vehicle, a thin intermediate film (16) assembled on the spring layer and having a surface mass of less than 200 g/m<sup>2</sup>, a porous stiffening layer (18) having a resistance to airflow of 500-3500 Nm<sup>-2</sup> and laid on the thin intermediate film, an upper porous layer laid on the porous stiffening layer, and a decorative layer laid on the upper layer. The upper layer (20) has a resistance to airflow of 200-2000 Nm<sup>-2</sup> and a surface mass of less than 200 g/m<sup>2</sup>. The sound insulation assembly (10) comprises a spring layer (14) having elastic and porous base to be placed against a surface (12) of the vehicle, a thin intermediate film (16) assembled on the spring layer and having a surface mass of less than 200 g/m<sup>2</sup>, a porous stiffening layer (18) having a resistance to airflow of 500-3500 Nm<sup>-2</sup> and laid on the thin intermediate film, an upper porous layer laid on the porous stiffening layer, and a decorative layer laid on the upper layer. The upper layer (20) has a resistance to airflow of 200-2000 Nm<sup>-2</sup> and a surface mass of less than 200 g/m<sup>2</sup>. The thickness of the porous stiffening layer is 20-70% of the total thickness of the sound insulation assembly. The porous stiffening layer is made of a felt, a compressed felt or a split foam, and has a surface mass of less than 3000 g/m<sup>2</sup>. The upper layer is made of a resistive non-woven material or a material having a resistance to controlled airflow. The thin intermediate film is monolayer or multilayer, and made of a thermoplastic polymer. The spring base layer is made of a felt.

IPC 8 full level  
**G10K 11/168** (2006.01)

CPC (source: EP)  
**G10K 11/168** (2013.01)

Cited by  
US9133615B2; EP2365483A1; FR2982559A1; US2012037447A1; EP2549474A1; FR2978288A1; US8695757B2; FR3079181A1; FR3094934A1; FR2979308A1; CN103534750A; CN103782338A; US2014332313A1; RU2606651C2; US11600254B2; US10081396B2; US10040489B2; CN102892631A; CN102792366A; JP2013521190A; WO2013072629A1; WO20111110588A1; US8863897B2; JP2013522094A; WO2012119654A1; WO2013026847A3; US8256572B2; US8261876B2; US8636105B2; US8636106B2; EP2684187B1; EP2748812B1

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**EP 2159786 A1 20100303; EP 2159786 B1 20130605**; ES 2426392 T3 20131023; FR 2935190 A1 20100226; FR 2935190 B1 20110422; JP 2010076756 A 20100408; PL 2159786 T3 20131129

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