Application Guide

Conwed Square Netting

Conwed™ Square Netting For Automotive Applications

SWM helps designers, engineers, manufacturers, Original Equipment Manufacturers (OEMs) and converters drive automotive innovation.

Create Exceptional Composites with SWM Advanced Materials & Structures

Conwed™ Square Netting is an essential component in hundreds of industrial and consumer products in many different industries worldwide. It can be incorporated with other substrates such as nonwovens, film, foam, paper, aluminum and other types of fabrics as a lightweight reinforcement layer in diverse composite configurations.

In addition to reinforcement, Conwed Square Netting can also provide other functionalities such as separation, containment, stretch, drapeability, lamination and bonding characteristics in different automotive applications.

From industrial wipes and interior fabrics to headliners, flooring, seats, door panels and more, Conwed Square Netting is a versatile component that can help composite manufacturers improve their products' performance. Contact our team and let us collaborate in your next product innovation. At every step of the design and production process, SWM adds value.

How to Incorporate Conwed Square Netting with Other Substrates

Extrusion Coating/Lamination

A polymer film can be extruded directly onto the substrate to provide a bonding layer (extrusion lamination) or an impervious coating (extrusion coating). Conwed Square Netting can be trapped between the substrate layer and the extruded film layer to significantly increase the tensile strength of the final product.

Thermal Lamination

In thermal lamination, one of the two materials of the laminate is melted to the other material under increased temperature and pressure to secure a good bond. SWM manufactures co-extrusion netting where adhesive properties can be included in the netting configuration.

Wet Lamination

A solvent or emulsion adhesive is applied to the netting or the nonwoven, putting both materials together under pressure and letting the solvent evaporate.

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Advanced Materials & Structures

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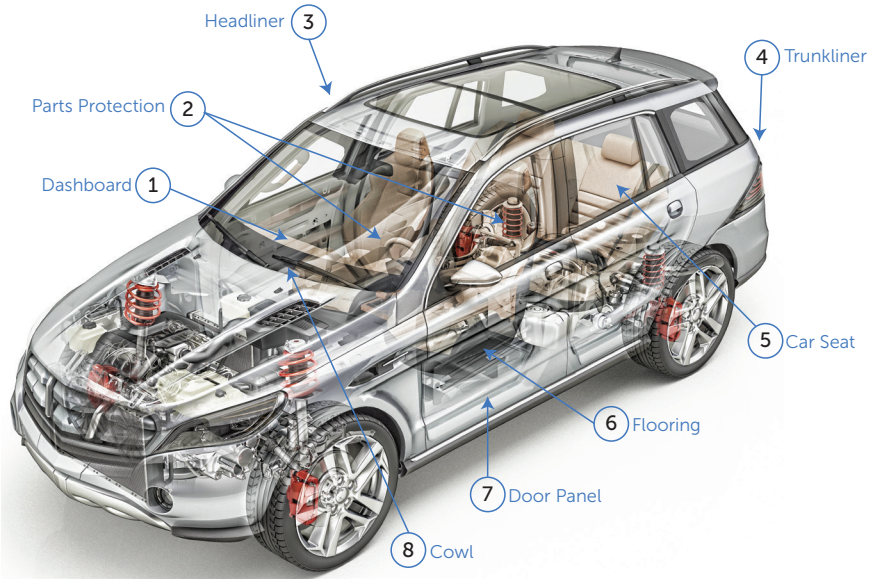
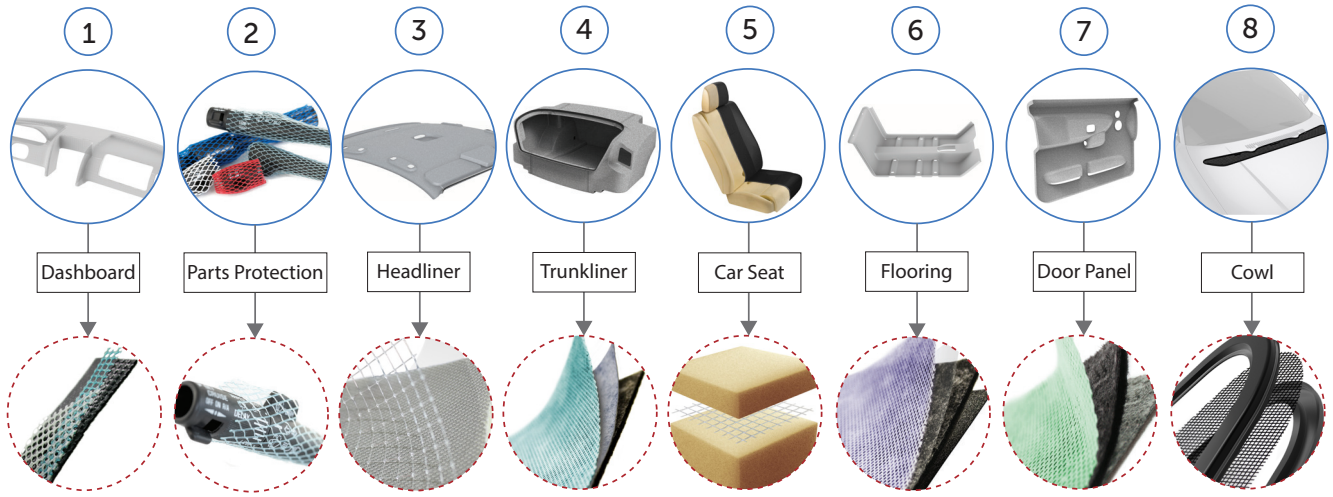
Dry Lamination
Powders (e.g. ethylene vinyl acetate), plastisols or hot-melt adhesives are applied to one of the substrates via several coating techniques: roll coating, spray coating, die coating, etc., and laminated together under pressure.

Ultrasonic Welding
Similar polymers can be combined using mechanical vibration and pressure. The substrates are threaded through a very precise gap where high frequency vibration and pressure generate heat to weld the layers together.



Nonwoven Processes
Nonwovens consist of millions of individual fibers. In the first manufacturing step, the nonwoven is produced via drylaid, wetlaid, spunbond or meltblown processes. Conwed Square Netting can be incorporated in this first step called "web formation".

After the web formation step, the fibers and the Conwed Square Netting are bonded together to form the final nonwoven composite. Most common bonding processes include chemical, thermal and mechanical (needlepunch and spunlace). SWM can customize designs and configurations to meet the properties and performance required in the final nonwoven product.



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