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# **Senoplast** Sheets and Films for Thermoforming and Lamination

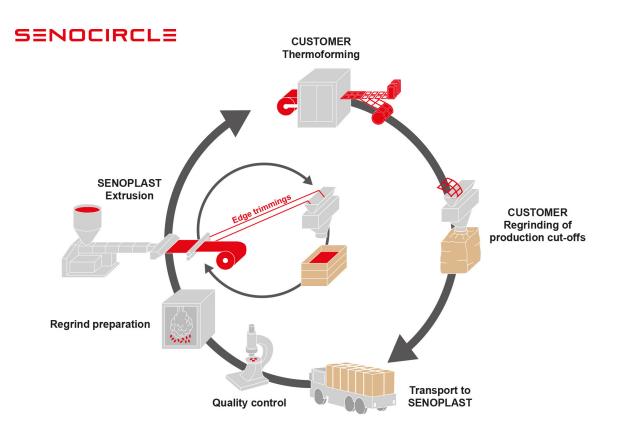
Senoplast is a leading company in producing sheets and films for thermoforming and lamination.

Senoplast Klepsch & Co. GmbH, founded in 1956 and having its international headquarters in Piesendorf, Austria, is a worldwide specialist in the production of coextruded plastic sheets and films for thermoforming. The familyowned company focuses on the coextrusion of multilayer sheets and films. The field of application of the produced senosan<sup>®</sup> products ranges from the automotive to the sanitary, the furniture and the transport vehicles industry.

Every year, around 60,000 tons of senosan<sup>®</sup> sheets and films are delivered from the main site in Piesendorf/Austria and the production facilities in Querétaro/ Mexico and Suzhou/China to around 60 countries worldwide. In 2021 the family-owned company achieved a turnover of around 300 million euros and was internationally successful with an export ratio of over 90%. The companies employ 530 people in Austria and 810 worldwide. Recently a new extrusion line was invested in Austria with a focus on production of plastic sheets made of ABS, ABS/PMMA and ABS/PC as well as PS increasing production capacity by 4,500 tons/ years.

The trademark senosan<sup>®</sup> does not only stand for high-quality plastic sheets and films but also for an ecology-minded production. The innovative and high-quality plastic

#### Aailway-News



sheets and films made of ABS, ABS/PC, ASA, PMMA, PS and PC offer a wide range of applications. Senoplast delivers high-quality surfaces according to specific needs and offers customised solutions for the railway industry.

### Thermoforming: A Very Economical Way to Provide Precise Parts for the Automotive Industry

Thermoforming is a process for forming thermoplastics under the influence of heat and with the aid of compressed air or a vacuum. The process has increasingly found applications in the industrial sector.

As an alternative to injection moulding, it is characterised by favourable mould costs and is particularly economical for small and medium-sized series. Flame Retardant Thermoformed Material for Interior Transportation Applications with senosan® C60FR-5

For the rail sector with its strong fire safety regulations Senoplast developed a material offering new opportunities for railway interior designers. The product senosan<sup>®</sup> C60FR-5 is a halogen-free flame retardant PC/ABS sheet with a matt surface and meets the European regulation EN45545-2, applications R1-HL3 and R6-HL3. The main advantages of the material are:

- High thickness-range from 2–5 mm
- Lower density only 1.3 g/cm3 (weight and cost reduction)

- Almost double impact strength compared to the competition
- Fulfils smoke density and surface flammability requirements for American rail applications (Docket 90-A and NFPA 130)
- Material fulfils EN 45545-2, R1-HL3 and R6-HL3 requirements with regrind – even if material is painted
- Antibacterial version (ISO 22196)
- Matt surface appearance with light embossing or smooth
- Big sizes possible (sheet formats for example 2.2m x 6m)

   limited only by what can be transported
- Even with included recycled regrind the material reacts



Example 1: Roof panels - painted

**Example 3:** Wall cladding with LARGE window openings – offcuts can be reused in recycled material – material called senosan<sup>®</sup> C58FR-5 (also meets EN45545- R1, HL3)

**Example 2:** Seat shells in Antibac version

with more ductility than other materials

Halogen-free

#### Sustainable Management and Recycling

As a family business, Senoplast stands by its responsibility towards society, nature, the environment and the people who work here. Senoplast has chosen the Green Spirit as its motif. He stands for the way we think, our idea of what tomorrow's world should look like, and how we use the resources given to us. Senoplast sees itself as a pioneer of environmentally friendly industrial production methods and has received many awards for this.

At Senoplast, sustainable management has a particularly high priority. The recycling concept developed by Senoplast ensures that almost all production and processing waste can be reused in the manufacturing process. In addition, the company has invested in a new regrind processing plant. This allows plastic recycled materials from the market to be processed accordingly and also used in production. The senocircle recycling system has been in use for more than 20 years.

In terms of sustainability, Senoplast is taking the next step to reduce its carbon footprint and achieve climate neutrality. In addition to the already available senosan<sup>®</sup> ECO furniture foils, which are largely made from recycled plastics, bioplastics under the senosan<sup>®</sup> ECO-B brand are to expand the climate-friendly product range. In doing so, the company is taking the mass balance approach, in which renewable raw materials are used as substitutes for fossil-based materials right at the start of the production chain. *"We have already obtained the ISCC-Plus certification required for this. This is a big step towards the goal of climate-neutral production at the Piesendorf site,"* says Günter Klepsch, CEO of Senoplast Austria.

#### Senoplast Klepsch & Co. GmbH

Mr Matthias Schmidl, Divisional Sales Manager

schmidl\_m@senoplast.com

+43 6549 7444 10220

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