

# INSIDE THE TRAIN IS OUR PART.

High quality products and an ecology-minded production are the main items of our company. Our flame retardant PC/ABS sheets offer new opportunities for railway interior designers.

## MAIN ADVANTAGES OF SENOSAN C60FR-5

- flame retardant (**halogen free**)
- matt appearance
- ductile breaking behaviour (no shiver)
- good recyclability
- chemical resistance
- good insulation properties



Antibac®

Hygiene is more important than ever. **senosan®** sheets have a special surface coating which reduces germs and bacteria by 99.9%.

**senosan®**



 Directory  
 < Rolling Stock

# Senoplast

## Sheets and Films for Thermoforming and Lamination



**S**enoplast 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 family-

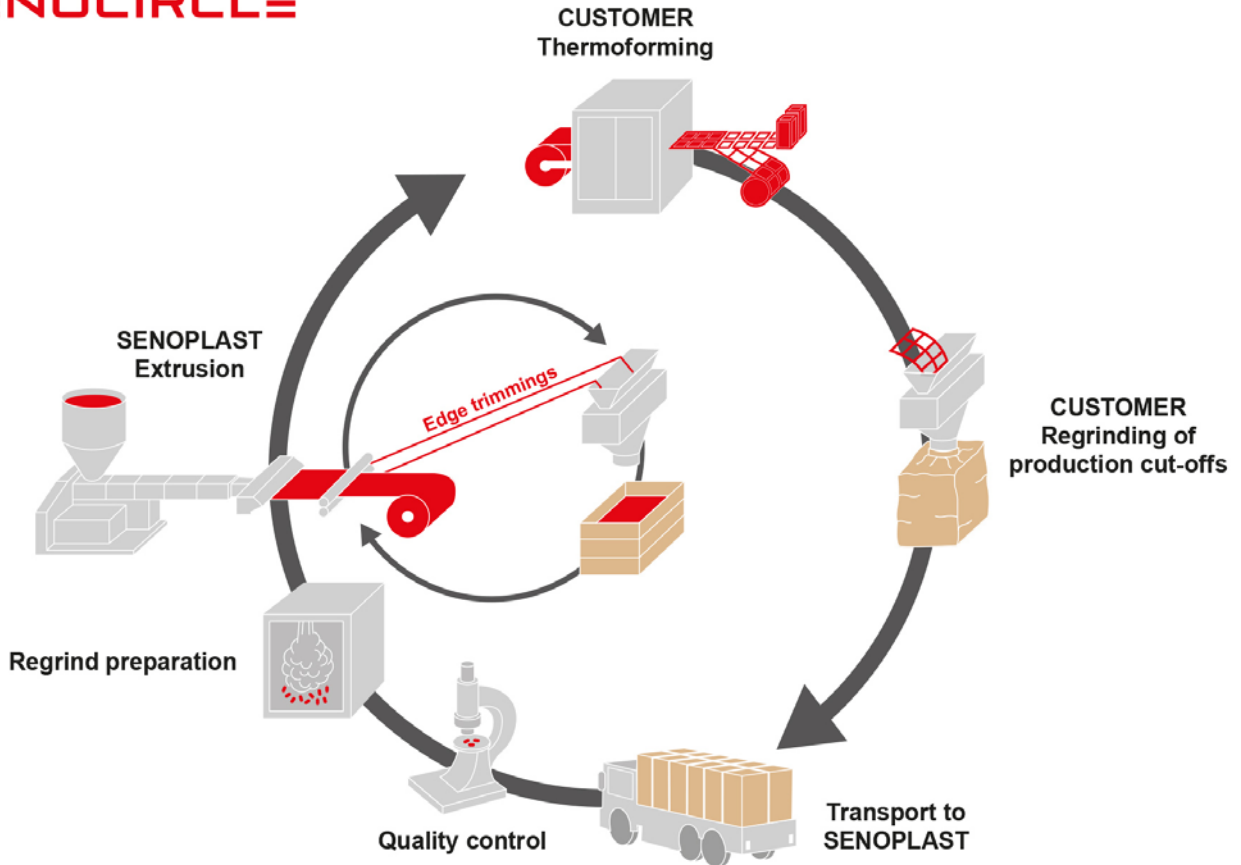
owned company focuses on the coextrusion of multilayer sheets and films; the field of application of the produced senosan® products ranges from the automotive to the sanitary, the furniture and the transport vehicles industry.

Every year, around 50,000 tons of senosan® 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 2020 the family-owned company achieved a turnover of around 200 million euros and was internationally successful with an export ratio of over 90%. The companies employ 530 people in Austria and 740 worldwide.

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

# SENOCIRCLE



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

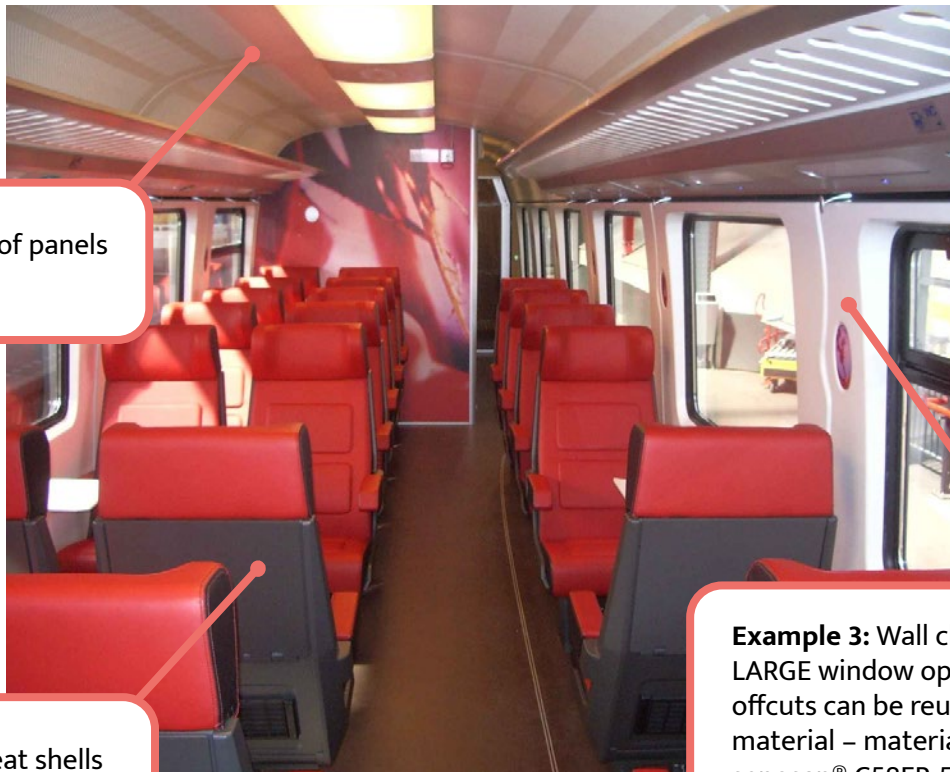
particularly economical for small and medium-sized series.

## 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® C60FR-5 is a halogen-free flame retardant PC/ABS sheet with a matt surface and meets the European regulation EN45545-2, applications R1-HL2 and R6 HL2. The main advantages of the material are:

- **High thickness range** from 2–5 mm
- **Lower density** – only 1.3 g/cm<sup>3</sup> (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-HL2 & R6 HL2** requirements with regrind – even if material is painted
- **Antibacterial version** (ISO 22196)
- Matt surface appearance with light embossing or smooth





**Example 1:** Roof panels – painted

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

**Example 3:** Wall cladding with LARGE window openings – offcuts can be reused in recycled material – material called senosan® C58FR-5 (also meets EN45545- R1, HL2 )

- **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 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. Unique in the plastics industry is the CO2 balance of the main plant in Piesendorf: the production of one kilogram

of plastic sheet only produces 5.6 grams of carbon dioxide. In addition, the company has been using a heat recovery system since 2003, which helps to save energy costs. For about five years, Senoplast has been purchasing electricity exclusively from renewable energy sources. For these activities, Senoplast was awarded the 'Umweltblatt Salzburg' prize for special environmental commitment in 2018.

For more information please contact:

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**SENOPLAST**