SIMORAIL

Thermoforming Guidelines

SIMORAIL thermoplastic sheets offer excellent physical and mechanical properties over their entire service life. The sheets are manufactured under tightly controlled conditions for consistent behaviour during thermoforming.

About SIMORAIL

Specially developed to comply with the EN 45545-2 standard, our low-flammability SIMORAIL sheets provide maximum safety for the interior lining of rail vehicles. SIMORAIL HL2 meets the requirements of HL2 for R1, which covers about 80% of the interior components used in rail transport. SIMORAIL HL3 meets the requirements of the highest hazard level HL3, which applies to rail vehicles such as sleeping cars, for example. Thus, SIMORAIL HL3 can be used in virtually any type of train. Both products also meet the requirements of NFPA 130.

Areas of use:
SIMORAIL can be deployed in the following areas, for example:

- Back linings
- Seats
- Armrests
- Wall linings
- Window panels
- Partitions
- Ceiling elements
- Shelving

Pre-drying and heating guidelines

For high-quality thermoforming results and uniform surface appearance, please follow these guidelines:

Pre-drying:

- Drying temperature: 75 °C (HL2+) / 90 °C (HL3) (preparation for thermoforming)
- Drying time: 60 min/1 mm wall thickness

Heating:

- Heating temperature range: 170 - 180 °C (HL2+) / 190 - 210 °C (HL3)
- Mould temperature: 90 °C

Our staff at the Technical Service Centre will be pleased to advise you on the processing and use of SIMORAIL:

Technical Service Centre
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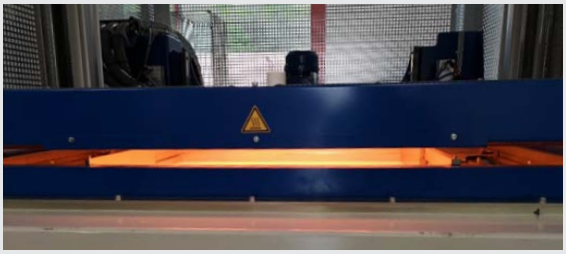
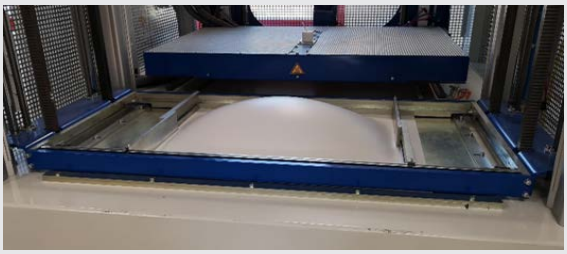
Thermoforming process

1. **Pre-drying the SIMORAIL sheet**

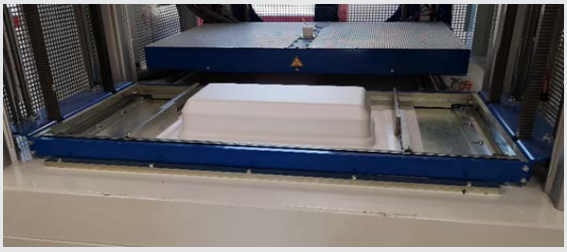
2. **Heating to around 200 °C (here: infrared heating; other heating methods possible)**



3. **Pre-blowing**



4. **Forming process (here: vacuum forming; other forming methods possible)**



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