POLYVANTIS

THERMOFORMING RECOMMENDATIONS LEXAN™ H6600 SHEET



Our fully compliant EN45545-2 (R1-HL2) LEXAN™ H6600 sheet has good **thermoforming** capabilities, the material ensures effortless fabrication of intricate components tailored to railway interior design.

RECOMMENDATIONS

- Sheet temperature, pre-stretching time, vacuum (cooling) time and sheet pre-drying time have been identified as most relevant parameters for thermoforming LEXAN H6600 sheets.
- Suitable operating conditions have been determined with a sit back shaped mold and therefore might require adjustments in order to achieve different geometries.
- Internal thermoforming trials have been performed with a GEISS T8 vacuum thermoforming machine with 500 mm draw depth, top & bottom heater with step-less control of halogen heating elements and electronic machine control with adjustable clamping frame in both axes.
- The unique stiffness properties makes it an excellent candidate for manufacturing large parts in railway interiors, such as:
  - Seating
  - Wall cladding
  - Ceilings
  - Window frames

THERMOFORMING PARAMETERS

	3 mm	4 mm	5 mm
T_{sheet} / °C	190 to 210	200 to 220	200 to 220
Pre-stretching time / s	2	2	2
Vacuum (cooling) time / s	≤ 20	≤ 20	≤ 20
Pre-drying time at 100 °C / hr	5	8	10



THERMOFORMING EQUIPMENT

	Value
Supplier	Geiss
Model	T8
Maximum sheet size / mm	1500 x 1250
Maximum forming size / mm	1460 x 1210
Maximum draw depth / mm	500 x 750
Minimum sheet side window, plate 1 / mm	350 x 750
Minimum sheet size window, plate 2 / mm	350 x 500
Technologies	• Vacuum forming • Pressure forming (air) • Twin sheet forming

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