

## Technical Data Sheet

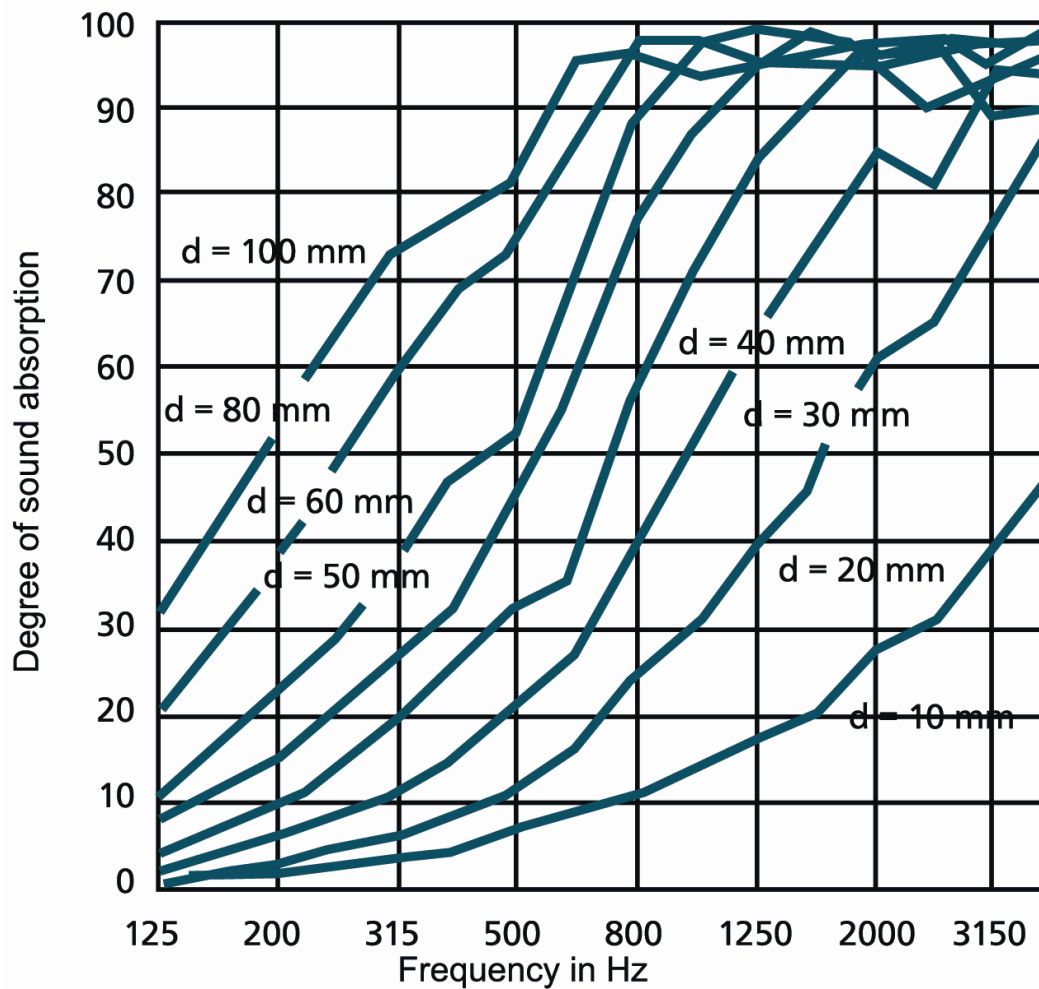
### Hanno<sup>®</sup>-Tect Foam

#### Product Description

Hanno Tect is an open-celled foam which is made using melamine resin.

#### Product Properties

High level of temperature stability, low thermal conductivity, good fire behaviour, low apparent density and excellent sound absorption properties.



#### Form of Delivery

- blanks, stampings
- self-adhesive
- with modified surfaces
- available in thicknesses of between 5 and 480mm

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### Handling

Only adhere it to dry, grease-free, clean substrates. Press the surface areas on well. You can easily adapt the material and cut it to size with a sharp knife.

### Special Instructions

The sorption behaviour of the melamine resin together with the open cells of the foam result in a change to the moisture content of the material, subject to the environmental conditions. These include dimensional changes of  $\pm 2\%$  (based on the mean moisture content). This behaviour must be taken into account during use (pre-storage of the components in an application-related climate).

Tect is not for outside use or when subjected to weather conditions.

If required, the material can be rendered hydrophobic and oleophobic by it being impregnated.

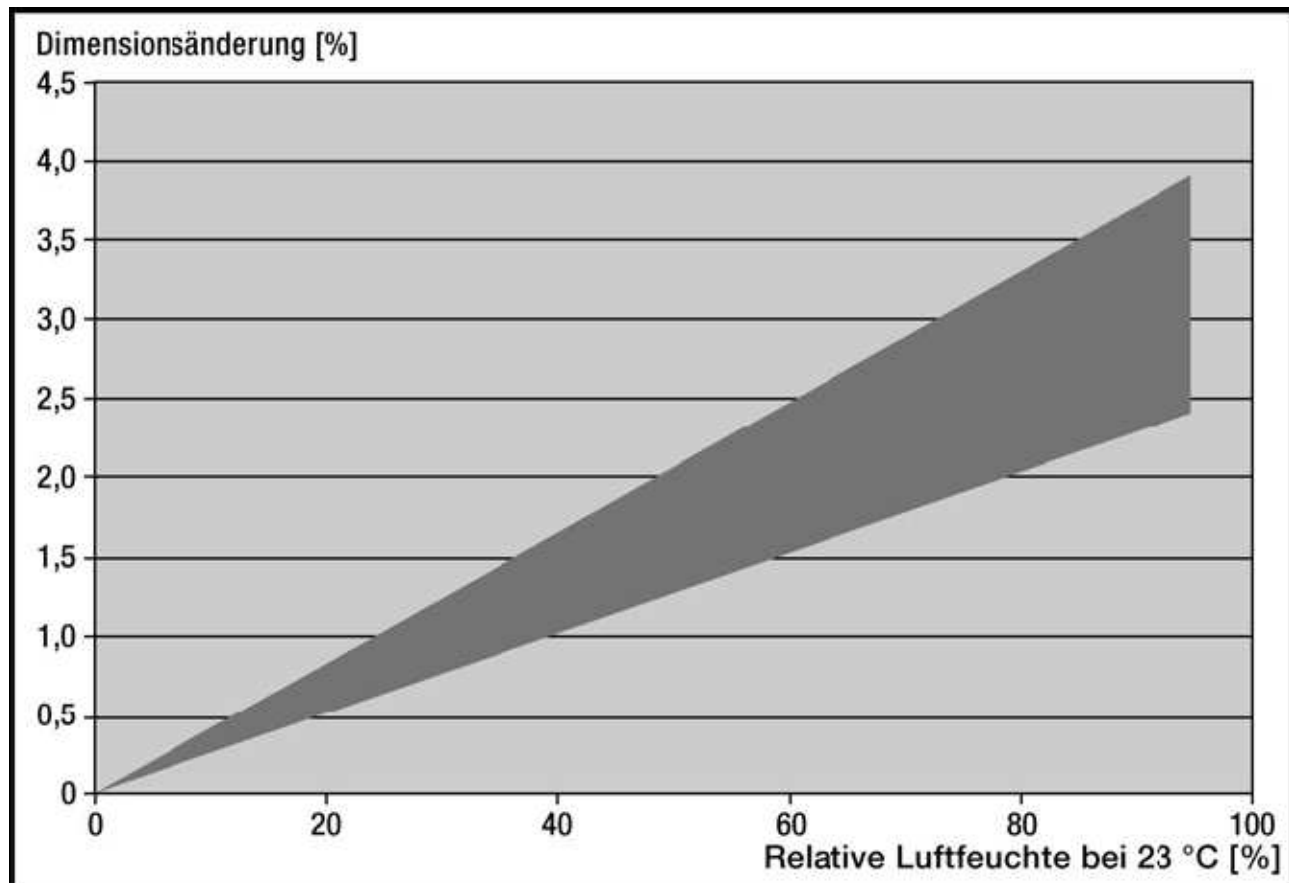


Diagram 1: Dimensional change subject to the relative room air humidity at an ambient temperature of 23°C

The product has a manufacturing-related mixed pore structure. Up to 10 pores per m<sup>2</sup> with a diameter of between 5 and 15 mm can occur per m<sup>2</sup> and do not give cause for complaint.

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### Safety Instructions

In view of the existing data and experience, the product is not hazardous material in the meaning of the Hazardous Material Regulations and the corresponding EC directives. We recommend however that you take the same care and use the same hygiene as is customary with working materials. Suitable measures are to be taken in order to ensure that the result dust is not inhaled.

### Technical Data

Colour		grey, white
Fire behaviour	CEN/TS 45545-2:2009: ISO 5660-1 ISO 5659-2 ISO 5658-2  DIN 4102-1 DIN 5510-2 DIN 54837	25mm: MARHE = 28 kW/m <sup>2</sup> (8142/27168, BASF*) 25mm: CIT4=0,15 & CIT8=0,2, D <sub>sm</sub> =110, VOF4 = 286 (8142/27167, BASF*) CFE = 30,9 kW/m <sup>2</sup> (8142/27166, BASF*)  B1 (024200, HFM*) S4, SR2, ST2 (7939/26629-50mm 7939/26602-10mm, BASF*)
	FMVSS 302 UL94 HF1	fulfilled fulfilled
Smoke gas toxicity	DIN 5510-2 Annex C DIN EN ISO 5659-2	fulfilled (PB 60-07-3032, RST*)
Maximum application temperature	DIN EN ISO 2578 (defined with DIN ISO 3386-1)	1000 h    220 °C 5000 h    200 °C 20000 h   180 °C
Bulk density	DIN EN ISO 845	9 +2/-1 kg/m <sup>3</sup>
Thermal conductivity	DIN EN 12667	< 0,035 W/mK (10°C, d = 50mm)
Degree of sound absorption	DIN ISO 10534	≥ 90% (d = 50mm, f = 2000Hz)
Residual compression set	DIN EN ISO 1856	5 – 30% (22 h, 70 °C, 50%)
Tensile strength	DIN ISO 1798	> 90 kPa
Elongation at break	DIN ISO 1798	> 10%
Compression hardness	DIN EN ISO 3386-1	5 - 10 kPa

\* HFM: Timber Research Munich; BASF: BASF SE Brandschutztechnik Prüfstelle, Ludwigshafen; RST: Rail Vehicle Testing Agency, Henningsdorf

### Environment and Disposal

Tect is manufactured without using hydrocarbons which contain halogen. The product does not pose a risk to water.

Tect does not contain any propellants when delivered and is not subject to labelling pursuant to the German Hazardous Substances Ordinance.

Tect waste can be thermally and materially recycled. Pure bonded foams with densities of between 25 and 100 kg/m<sup>3</sup> have an excellent sound absorption in lower and medium frequency ranges. Loose flock fillings have already been successfully applied to the cavities of intermediate ceilings with the objective of improving their acoustic properties.

Basotect® flocks have also already been used as a binding agent for liquids.

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### Chemical Resistance

The crush resistance pursuant to ISO 3386-1 (40% crushing, 4<sup>th</sup> load cycle) serves as the evaluation criteria. The information is valid for a test temperature of 23°C.

Medium		Evaluation	Medium		Evaluation
<b>Alcohols</b>			<b>Hydrocarbons</b>		
Butyl alcohol		+	Petrol		+
Ethyl alcohol		+	Diesel		+
Glycol		+	Kerosene		+
Glycerine		+	<b>Alkaline Solutions</b>		
Isopropyl alcohol		+	Ammonia liquor	25%	+
Methyl alcohol		+	Sodium carbonate	25%	+
			Caustic soda	40%	+
<b>Acids</b>			<b>Esters</b>		
Formic acid	90%	-	Butyl acetate		+
Ethanoic acid	90%	+	Ethyl acetate		+
Lactic acid	10%	+	<b>Ketones</b>		
Phosphoric acid	50%	-	Acetone		+
Nitric acid	10%	-	<b>Other Solvents</b>		
Hydrochloric acid	10%	-	Dichlormethane		+
Sulphuric acid	10%	-	Diethyl ether		+
Citric acid	10%	+	Glykol ether		+
<b>Aggressive Gases</b>			<b>Other Chemicals</b>		
Chlorine	low concentration	+	Sodium hypochlorite solution		-
	high concentration	-	Sodium chloride solution		+
Ozone	low concentration	+	Water		+
	high concentration	-	Hydrogen peroxide	30%	-

### Restriction of liability

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