

## TIBREX® Refractory boards

TIBREX® refractory boards are made from ceramic aluminosilicate refractory fibres, bonded with an inorganic bonding agent only. These unique boards are used for purposes that require high thermally insulating capacity at higher temperatures.

Products made from these fibres are used for insulating interiors of various types of boilers and furnaces, combustion chambers, reactors, and as progressive insulation materials in metallurgy and foundries.

Since TIBREX® boards have to show sufficient strength in heat, they use inorganic bonding agents, which retain their bonding ability even at high temperatures. The advantage of using an inorganic bonding agent is that it does not burn away under high temperatures. It also contributes to a homogenous bonded structure and good board strength and coherence at higher temperatures, up to the thermal resistance of the actual fibres.

TIBREX® refractory boards are designed primarily for insulation with thermal resistance up to 1200°C. They provide structural protection from high temperature and great heat savings by preventing heat loss. The application of fibrous insulation materials has a long tradition, and the energy saving, especially in discontinuously (periodically) operating furnaces or thermal plants, is 30 to 40% of the heat compared to the heat consumption of furnaces built only using conventional refractory materials. The boards are mostly used as heat-resistant sealants, expansion components of linings of thermal plants (furnaces, lids, mixers, convectors, etc.), insulation for gas chambers and burners, household boilers, etc.

The boards are made using the paper mill process from water slurry, composed of ceramic aluminosilicate fibres, inorganic bonding agent, and additives. Since the unique TIBREX boards do not contain organic admixtures; the material is suitable for household applications.

### Advantages of using TIBREX® fibrous insulation boards:

1. high thermal resistance
2. energy saving
3. low thermal inertia - low heat accumulation
4. easy to handle when building equipment
5. light equipment weight compared to conventional materials
6. lower equipment construction costs
7. improved operator working environment

Property	Unit	TIBREX®		
<b>Bulk density</b>	kg/m <sup>3</sup>	420 ±50		
<b>Width</b>	mm	1000 ±5		
<b>Length</b>	mm	500, 750 ±2		
<b>Thickness</b>	mm	4, 6, 8 ±1 and 10, 13, 15, 20 ±2		
<b>Humidity (max.)</b>	%	4		
<b>Loss by annealing (max.)</b>	%	4		
<b>Coefficient of thermal conductivity</b>	W.m <sup>-1</sup> .K <sup>-1</sup>	<b>200°C</b>	<b>600°C</b>	<b>1000°C</b>
		0.12	0.17	0.34
<b>Compression strength at 10% deformation (min.)</b>	kPa	100		
<b>Shrinkage after heat exposition</b>	%	(at 1200°C for 24 hrs)		4
<b>Flammability level</b>	A: non-flammable			
<b>Maximum application temperature</b>	°C	1200		

We can supply other dimensions and cutouts as well depending on customer specifications.

