### PROMAPACK<sup>®</sup>-700 and -900 Insulating and Sealing Boards 1000°C to 1100°C

#### **Material Description**

PROMAPACK® boards are rigid insulating materials based on mineral wool, wollastonite and aluminium silicate wool with mineral filling components. The boards are bound with both organic and inorganic binders. Due to this combination, the boards have high temperature resistance, low thermal conductivity and good electrical insulating properties. This material is asbestos-free and with its all-round properties it replaces previously used asbestos boards. The areas of application are numerous and not limited to the main application field of high temperature seals.

#### **Advantages and Properties**

- thin, lightweight and rigid
- smooth surface
- can be shaped in wet condition
- excellent machinability
- high temperature resistance
- insensitive to thermal shocks
- high electrical insulation
- low thermal conductivity
- hardly wetted by molten metal
- good acid resistance

Technical Data						
Product Name		PROMAPACK® Insula	PROMAPACK® Insulating and Sealing Boards			
		-700	-900			
Colour		light grey	beige/brown			
<b>Classification temperature</b>		1000°C	1100°C			
Bulk density p		960 kg/m³	1000 kg/m <sup>3</sup>			
Tensile strength <sup>1)</sup>		2.5-5.0 N/mm <sup>2</sup>	2.5-5.0 N/mm <sup>2</sup>			
Shrinkage at 1000 °C, 24h		2.6%	0.8%			
Specific heat capacity c		1.2 kJ/kg K	1.2 kJ/kg K			
Thermal conductivity $\boldsymbol{\lambda}$		W/m K	W/m K			
	400°C	0.10	0.12			
	600°C	0.11	0.13			
	800°C	0.13	0.16			
	1000°C	0.14	0.20			
Chemical analysis		%	%			
	SiO <sub>2</sub>	44	45			
	$AI_2O_3$	34	18			
	CaO	0.6	20			
	LOI	19	15			
Binder content, organic		11.5%	12.8%			

<sup>1)</sup> depending on the board thickness





#### **Working and Processing**

PROMAPACK® can be punched, cut, milled and drilled easily with conventional woodworking machinery with hard-metaltipped tools. PROMAPACK® boards have the additional advantage that they can be shaped in wet condition – without breakage.

When working and processing aluminium silicate wool products, the Technical Regulations for Hazardous Materials (TRGS) must be observed.

**PROMAPACK®** boards





#### **Areas of Application**

As insulating and sealing material, especially as a substitute for previously used asbestos boards.

- High temperature sealings
- Carrier material for roller conveyors in metallurgy and in the glass industry
- Rear insulating layer in furnace construction as a barrier layer and for absorption of aggressive condensates
- Household appliances, heating systems and burners
- Protecting device and welding pad

#### **Special Qualities**

#### PROMAPACK®-800

- for roller conveyors in flat glass production
- PROMAPACK®-1120
- for roller conveyors in sheet steel production

#### Accessories

With bonding agent K84 or ALSIBLOCK®-D bonding agent, PROMAPACK® can be bonded layer on layer or on other insulating materials, according to temperature demand. The bonding joint has to be executed as thinly as possible.

#### **Delivery Sizes**

Standard dimensions	PROMAPACK®-700			PROMAPACK®-900				
Length x width (mm)	1000 x 1000			1000 x 1000				
Board thickness (mm)	1	2	2.5	1	2	2.5		
	3	4	5	3	4	5		
	6	8	10	6	8	10		

#### Tolerances

Dimensional tolerances of standard boards: Lengths and widths:  $\pm~5\%$ 

Thicknesses:	
1.0 mm	± 0.1 mm
1.5/2.0 mm	± 0.2 mm
3.0 mm	± 0.3 mm
4.0/5.0/6.0 mm	± 0.4 mm
8.0/10.0/12.0 mm	± 0.5 mm

## Thermal conductivity curve for PROMAPACK®-700, -900



## → 1260°C

PROMAPACK® shaped parts



# **MG Materials**

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