

ISOPLAST E-AL

Technical Data Sheet

Material

ISOPLAST E-AL is a ready-to-use plastic insulating material with ecological ceramic fiber, which has a high thermal insulating behavior and a high refractoriness. It can be used in direct contact to melted metal (till 1350 °C)

For further information visit www.deltaphoenix.it

General informations

Main component:	Ecological fiber
Melting temperature:	>1350 °C
Highest usage temperature:	1250 °C
Chemical analysis after heating at 150 °C:	Al ₂ O ₃ +TiO ₂ : 4-5 % SiO ₂ : 88-90 % MgO : 4-5 % Shot content : < 7 %
Density after setting:	1540 [kg/m ³]
Density after heating at 1000 °C:	1000-1100 [kg/m ³]
Thermal conductivity:	400 °C : 0,15 [W/(m·K)] 1000 °C : 0,20 [W/(m·K)] 1150 °C : 0,21 [W/(m·K)]
Compressive strength after heating at:	150 °C : 1,1 [MPa] 700 °C : 1,3 [MPa] 1150 °C : 1,6 [MPa]
Application:	by hand /trowel
Drying:	see drying path in the above graphs

Storage

ISOPLAST E-AL package: 25 kg or 8 kg plastic bags inside plastic barrels.

To preserve best conditions, it's necessary to store material in fresh, haired, dry warehouse, lifted from floor and far from walls.

Storage temperature: 5 °C - 30 °C

If all the information above are confirmed, **storage time is 6 months**

Main technical characteristics

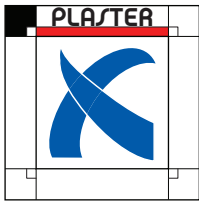
ISOPLAST E-AL is a thermal insulating ready-to-use plastic material with the following main technical characteristics:

- high thermal insulation
- easy workability and plasticity
- Protective layer and retrofitting of holding Aluminum furnaces
- Protective layer for channels
- Retrofitting of Aluminum ladles

Fields of application



ISOPLAST E-AL is an official brand of Delta Phoenix srl
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ISOPLAST E-AL

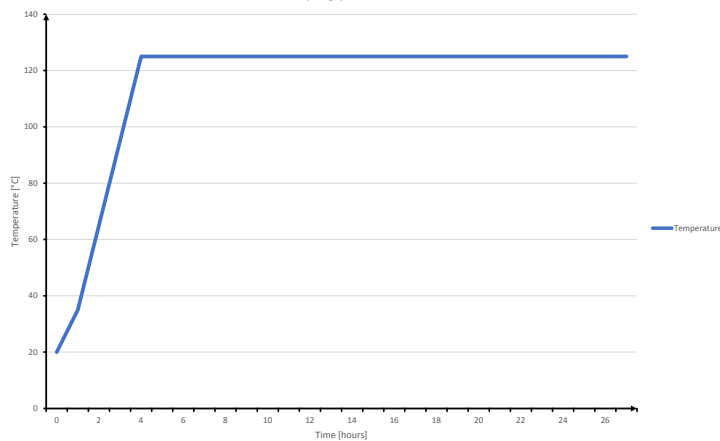
Drying path

N.B. :

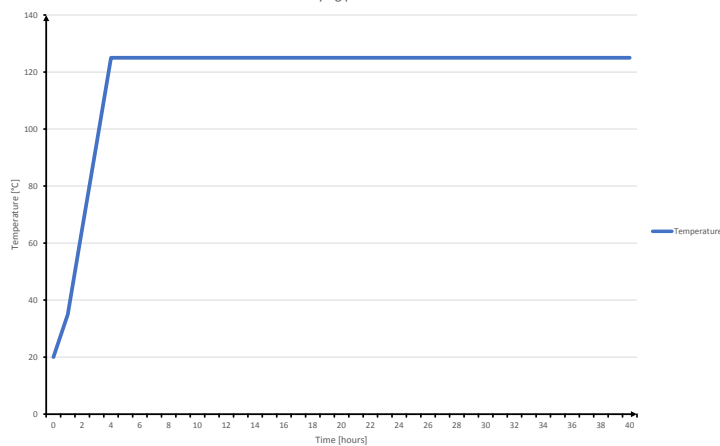
After cooling the material to environmental temperature, it's necessary to close holes and little cracks on the surface using one of the following methods:

- Painting with **ISOPLAST E-AL** mixed with the 30% of water
- Painting or spraying **TIKOBOND 27** with a thickness of 2-3 mm
- Painting or spraying **TIKOBOND W 3** with a thickness of 2-3 mm

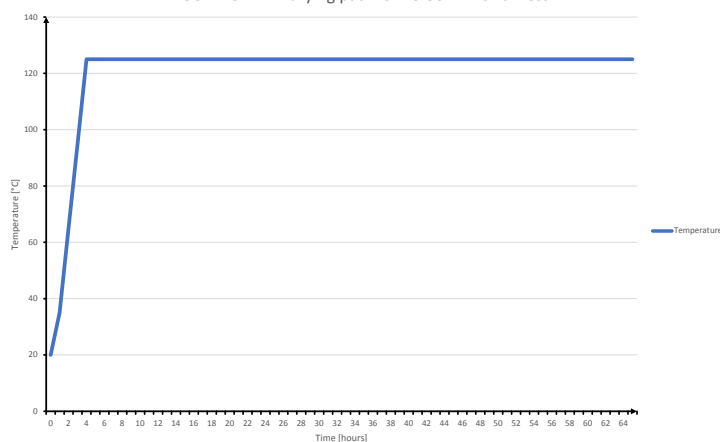
ISOPLAST E-AL drying path for 20-30 mm thickness



ISOPLAST E-AL drying path for 30-40 mm thickness



ISOPLAST E-AL drying path for 40-50 mm thickness

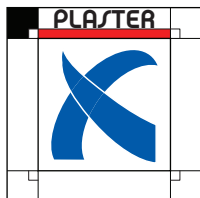


Because of the variation of raw materials used there it should be slight change in the above data. This cannot concern our Company. We can change any specifications to improve material qualities without any preventive communication always in respect of our unconditional evaluation.



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Application

Storage

ISOPLAST E-AL package: 25 kg or 8 kg plastic bags inside plastic barrels.

To preserve best conditions, it's necessary to store material in fresh, haired, dry warehouse, lifted from floor and far from walls.

Storage temperature: 5 °C - 30 °C

If all the information above are confirmed, **storage time is 6 months**

Essential tools

ISOPLAST E-AL is a ready-to-use plastic material which can be applied by hand (wearing protective gloves) or by trowel with the warning to wet it to let the material detach itself from the tool

Preparation of the support

1. Clean surfaces (bricks, concrete, carpentry,...)where material is needed. No dust, slug, metals and any other unstable element is allowed.
2. Wet surfaces before application using **STUCH PH 10**. If this thing is not possible, wet surfaces using **ISOPLAST E-AL** pre-mixed with 30% of water.



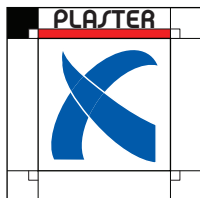
Pic 1: **ISOPLAST E-AL** application by hand on casting runner



Pic 2: **ISOPLAST E-AL** application by hand on casting runner



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ISOPLAST E-AL

Implementation

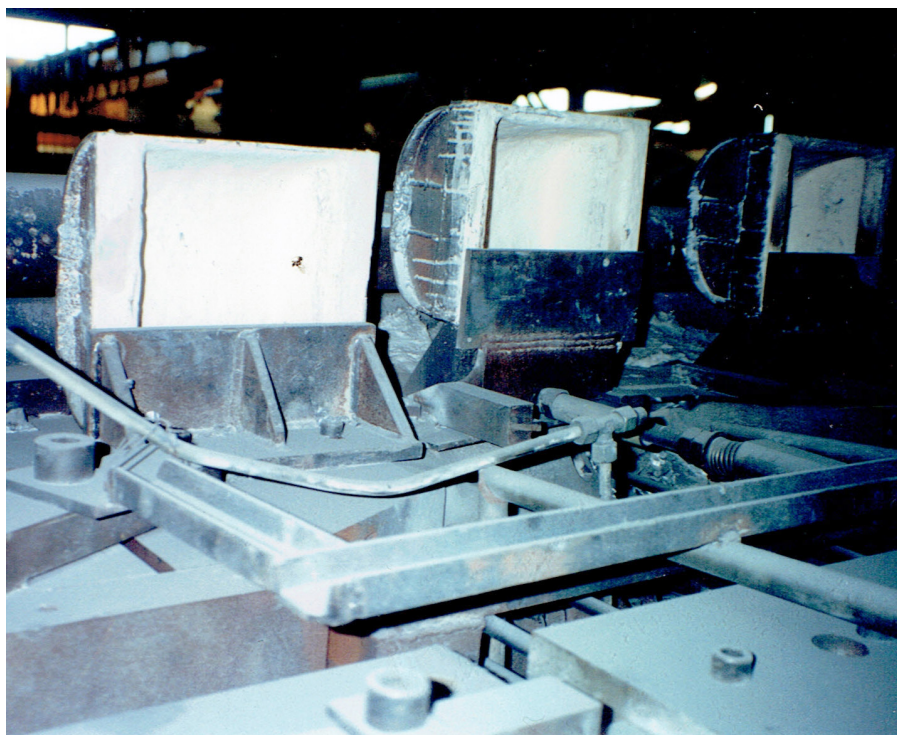
ISOPLAST E-AL is a ready-to-use plastic material; no mixing or water adding is necessary.

1. Apply **ISOPLAST E-AL** on wet surfaces as-it-is by hand and/or by trowel, keeping attention to homogenize it with itself and pressing it on the surface.
2. Once application is ended, smooth the surface using a trowel, keeping attention to use the same smoothing direction.

N.B. : material sticks to tools. keep close a barrel of water to clean tools to easy-detach material from them.

3. Once smoothing is ended, if the thickness is higher then 20 mm, it is necessary to create holes of 2-5 mm of diameter every 30-40 mm trough the whole thickness of material to easy drying it.

It is possible to start drying material immediately after the implementation



Pic 3: coating of cups for Aluminum