

#### Purpose:

DDphoeniX cleaning powder is a powder which, in combination with a special sintering program, aims at supporting the cleaning of a sintering furnace discolored by MoSi<sub>2</sub> heating elements.

#### Area of application:

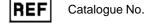
DDphoeniX is a powder for supporting the cleaning of discolored sintering furnaces. Regular use should lead to a process improvement by minimizing the discoloration problem in the long term, thereby prolonging the error-free life of the heating elements.

To ensure a problem-free application and to achieve the desired effect, it is essential to follow the application instruction.

#### **Explanation of symbols:**



Consult instructions for use



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Manufacturer



Store dry



DD**phoeniX** 

# Instruction for use



#### **General**

- Wear gloves, eye and mouth protection to avoid irritation
- Please do not eat or drink while handling the powder
- Avoid inhaling the dust during use
- Apply DDphoeniX to the sintering tray at a moderate speed to avoid increased dust formation

#### **Handling**

Advice for safe handling:

• No special measures are necessary

#### Advice on fire and explosion protection:

No special measures are necessary

#### **Storage**

- Store tightly sealed in the original container
- Store in a cool, dry place

#### **First aid measures**

- In case of contact with eyes, rinse with plenty of clean, cold water and consult a doctor if there is prolonged irritation
- In case of contact with skin, wash well with warm, soapy water. Consult a doctor if there is prolonged irritation
- Ingestion: Rinse the mouth out with water and drink plenty of water; if there is discomfort consult a doctor
- Do not induce vomiting
- Inhalation: Seek out fresh air; if there is discomfort consult a doctor
- Further details: If feeling unwell, seek the advice of a doctor and present the safety data sheet



#### When should DDphoeniX be used?

#### - In case of discolouration problems:

If the furnace is exhibiting severe discoloration, one cleaning program will probably not be sufficient to counteract. It is recommended that 2-3 cleaning cycles in combination with DDphoeniX are carried out one after another (no standard sintering process in between!). If the powder is no longer exhibiting discoloration, it should be possible to use the furnace again without problems.

#### - Regular preventative use:

Regular use of DDphoeniX can prevent problems with discoloration. The frequency of application is dependent on the intensity of furnace use. As a general rule, a 2-weekly application should be sufficient. In the case of heavy use, the frequency can be shortened to a weekly application.

# DD**phoeniX**

# Instruction for use



#### **Dosage:**





Use gloves when dispensing the powder and measure out DDphoeniX at a moderate speed to minimize dust formation.

As it is difficult to remove the powder from porous surfaces, DDphoeniX should be applied to a smooth base.

Spread DDphoeniX slightly heaped over a large area.

In doing so, make sure that the furnace lining and table are kept free of powder.



#### **Sintering**



#### Sintering – cleaning program - according to the furnace manufacturer's recommendation.

On the following page, a few examples for different recommendations are listed. If your furnace is not listed, please contact the furnace manufacturer and find out which program you need to use.

#### Sintering – manufacturer's recommendations

#### Mihm Vogt HT-S bzw. HT-S Speed:

Mihm Vogt HT bzw. HT-Speed:

Heating / cooling rate (°C/min)	Temperature (°C)	Dwell time (min)	Heating / cooling rate (°C/min)	Temperature (°C)	Dwell time (min)
30	300	0	20	300	0
25	1550	480	15	1550	480
0	0	0		0	
0	0	0		0	



#### Sintering – manufacturer's recommendations

Thermo-Star:

#### Nabertherm:

Heating / cooling rate (°C/min)	Temperature (°C)	Dwell time (min)	Heating / cooling rate (°C/min)	Temperature (°C)	Dwell time (min)
2	1500	240	6	1650	300
Prog. End			Prog. End		

### DD Argus Fire:

Start the program which is saved on positon "0".

# DD**phoeniX**

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## Manufacturer:

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The manufacturer maintains a quality management system according to : DIN EN ISO 13485

