



EKamold® EP AEROSOL BORON NITRIDE SPRAY

EKamold® EP is an Ethanol based Boron nitride coating, incorporating hexagonal Boron nitride together with refractory binders which ensure good adhesion properties at high temperatures.



EKamold® EP Aerosol Boron Nitride Spray

Typical Application

Applied to Calcium Silicate Materials

- For hot top rings
- For slide and float valves
- For nozzles and stoppers
- For runners, etc.

Applied to Metals

- For ladles and skimmers
- For thermocouple protection tubes
- For measuring probes
- For tools, etc.

Applied to Graphite Materials

- For crucibles
- For pouring equipment
- For impellers, etc.

Properties

EKamold® EP is particularly suitable for the coating of mineral type insulating materials, refractories, graphite as well as metals. Through the use of Boron Nitride of high chemical purity, it is possible to achieve a temperature resistant coating with excellent release and lubricating properties.

These properties are retained even when in direct contact with molten metal and slag, especially for non ferrous applications.

The use of a Boron Nitride coating can therefore be seen to reduce wear by protecting the surface and improving sliding properties.

EKamold® EP coating is temperature resistant up to approximately 1000 °C in air. The coating exhibits excellent thermal conductivity and is electrically isolating.



Advantages

- Excellent release agent
- Lubricating medium between moulds and ingots
- Reduction of erosion by the melt
- Improvement of ingot surface quality
- Improvement in life of hot top rings as well as slide and float valves
- Extension of maintenance and lubrication intervals
- Environmentally friendly

Health and Safety

Due to the Ethanol content, the product is highly flammable and therefore covered by the dangerous goods regulations. During processing, it is essential to provide adequate ventilation, not to smoke, and to remove any open flames or other sources of ignition. Do not apply to hot surfaces. Regulations covering the safety and handling of flammable materials must be observed.

For further information, please refer to the applicable health and safety data sheet.

Processing

EKamold® EP is supplied ready to use by spraying. Due to the Ethanol base, it is essential to provide adequate ventilation. Ignition sources should be removed.

Porous surfaces with higher absorption characteristics, such as refractory materials, are best coated by spraying. Smooth and dense materials, such as metal and glass, are best coated by spraying, which has the additional benefit of achieving the best surface finish.

The parts to be coated should be dry and free from dust, oil and grease as well as any residues of paints and lacquers.

To prevent the formation of cracks, it is recommended that a thin coating giving full coverage be applied. The drying time is short and, due to the Ethanol base, drying at room temperature is feasible (approximately 30 minutes depending on component size).

Drying is complete when no further Ethanol odours are perceptible. Gentle heating of the components, to around 40 to 60 °C, reduces the drying time. It is not necessary to burn in the coating.

It is possible to polish the dried coating with a smooth leather or rubber (glove), which would achieve a “dense” shiny surface with excellent release properties.

Tools and equipment can be cleaned in water.

These recommendations are intended to act as a guide only, and are given in good faith to our best knowledge and belief. Process conditions can vary depending on the application.

Specifications

Product Data	EKamold® EP Aerosol
Color	white
Powder constituent (BN)	≤ 15 %
Liquid phase	ethanol
Bonding agent	inorganic binder
Density	≤ 1,0 g/cm ³
Viscosity	low viscosity
Application temperature	1000 °C in air
Grating test	4B*

* DIN ISO 2409 less than 5 percent detached Area

Storage

Containers should be kept tightly closed and should be protected from heat. Store in a cool and dry place. Regulations which apply to the storage of flammable materials must be on the container.

Availability

EKamold® EP is available in 500 ml aerosol cans.

Larger quantities can be supplied in agreed batches.