



EKamold[®] RELEASE AGENT AND PROTECTIVE COATING

EKamold[®] is ESK's range of Boron Nitride based solutions especially in contact with molten aluminum alloys.



EKamold[®] Suspension



EKamold[®] Spray

Typical Application

Applied to Metals

- For tools (ladles, skimmers)
- For thermocouple protection tubes
- For measuring probes

Applied to Refractory Materials

- For transition plates
- For slide and float valves
- For nozzles, stoppers and runners

Applied to Graphite Materials

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

Properties

Due to the use of Boron Nitride of high chemical purity it is possible to achieve temperature resistant, stable coatings 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 coating can therefore be seen to protect the coated surface by reducing wear and improving sliding properties.

Coatings with Boron Nitride are temperature resistant to around 1000 °C in air. The coating shows good thermal conductivity and is electrically insulating.



Properties

Product Data	EKamold® WP	EKamold® EP	EKamold® EP Aerosol	EKamold® TG Aerosol
Color	White	White	White	White
Powder Constituent (BN)	≤12%	≤15%	≤15%	≤7%
Liquid Phase	water	ethanol	ethanol	ethanol
Bonding agent	inorganic binder	inorganic binder	inorganic binder	organic binder
Density	1.03 – 1.06 g/cm ³	≤1.0 g/cm ³	≤1.0 g/cm ³	≤1.0 g/cm ³
Application Temperature	1400°C vacuum 1000°C in air			

Processing

EKamold® WP can be applied by brushing, rollins, dipping or spraying.

Availability

- EKamold® WP is available in Polyethylene canisters of 10 kg capacity
- EKamold® EP is available in Polyethylene canisters of 2.5 kg capacity
- EKamold® EP Aerosol is available in 500 ml aerosol cans
- EKamold® TG Aerosol is available in 500 ml aerosol cans

Advantages

- Excellent adhesion
- Excellent release agent, especially in applications with non ferrous melts
- Reduction of erosion by the melt and therefore
- Reduced carryover of ferrous contaminants into the melt
- Improvement of ingot surface quality
- Outstanding non-wetability against molten metals
- High thermal conductivity
- Resists build up of dross