

Armatech Coating

'For Longer Life Wear Options'

Data Sheet

What is Armatech?

It's a nickel chrome based alloy metal powder coating with additions of vanadium, boron and silicon that is applied to components with high wear areas through a sintering and final heat

treatment process. Tungsten carbide granules can be added into the ARMATECH coating, to provide even longer wear life

How is Armatech Powder Manufactured?

It is produced to our unique specification, which sets out all the parameters of manufacture. The powder is created through a special process of high-pressure water atomisation, resulting in a consistent chemistry with minimal contaminants, a fine particle shape, and the correct granular size.

The high degree of fine granular shape is achieved through filtration, while the particulates are furnace-heated to 1500°C and water atomised.



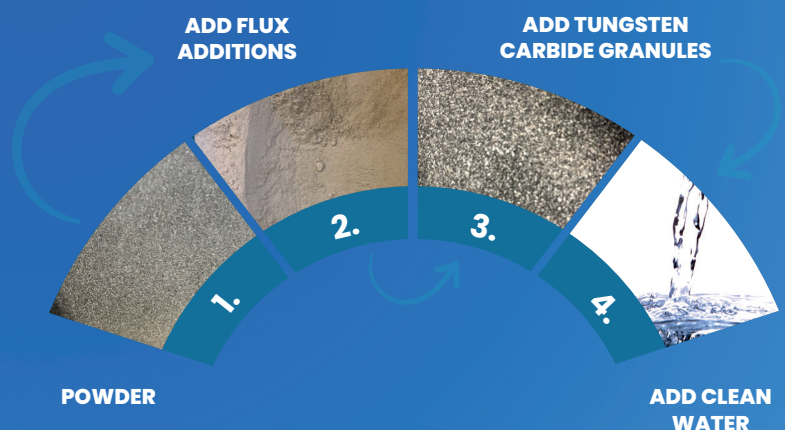
Armatech Powder Processing

In order to transform the powder into liquid form, two further elements are added in a clay form to act as a flux and as a bonding agent.

This creates the correct viscosity of the liquid and also helps remove oxides during the sintering process.

The Armatech Coating Process

The Armatech Powder



Please do not hesitate to contact us if you require further explanation or data.

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Club Mill Road, Sheffield, S6 2FH Tel: 0114 285 6000

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The Armatech Sintering Process



DRYING SECTION

Removes H₂O and binds the ARMATECH to component



HEATING IN NEUTRAL ATMOSPHERE CONTROLLED FURNACE

Sintering forms the ARMATECH bond between the coating and the component



CONTROLLED COOLING

Reduces risk of coating contraction and cracking and coating oxidation

THE FINAL HEAT TREATMENT

Components are hardened and tempered to maximise hardness and durability

Armatech Coating & its unique benefits...

- ✓ It can be targeted to high wear areas of a component
- ✓ There are no heat affected or soft zones in the coating or component
- ✓ The coating can follow a component's shape or form, however complex
- ✓ There are no costly machining operations to prepare for the coating
- ✓ Coating can be single or double thickness at up to 1mm per coating

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WEAR LIFE GUIDANCE

As a general rule, Armatech coated parts have **THREE** times the wear life for **TWO** times the cost when compared to uncoated products.

HARDNESS

Hardness is around 62 HRC

Note: The addition of tungsten carbide content is dependent on the customer's requirements.

APPLICATIONS

All ground engaging components

Above ground for cutting applications

Note, the coating design or pattern is crucial to the coating life

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