JOTUN

JOTATEMP 650

Surface Tolerant Coating for Corrosion Protection at Extreme Temperatures

Corrosion Under Insulation (CUI)

Corrosion behind linings is a complex subject.

By logically considering each of the issues which can be a cause of CUI, the problems in most environments can be solved with coatings. It should be remembered that CUI is often more aggressive due to the lack of ventilation and a serious, unseen microclimate.

As energy costs and environmental waste energy awareness increase the use of insulation will increase. The hazards of CUI will become more relevant in areas not seen before but the rules will still apply – know your environment.

The main causes of CUI are:

- Moisture
- Chemical constituents in the moisture
- Chlorides in the insulating material
- Temperature gradient in the steel
- Cyclic temperature and condensation (precipitation) – leading also to salts accumulation
- Lifetime expectations / inspections
- Type of insulation
- Difficult inspection

JOTATEMP 650

IDEAL FOR MAINTENANCE

- Surface tolerant
- Application up to 260ºC during operating
- No special equipment required
- No special preparation required
- No shut down required when painting

Jotatemp 650 is a surface tolerant high build one component Inert Multipolymeric Matrix coating.

It is especially suited for preventing Corrosion Under Insulation during construction and shut down or low temperature periods. It provides corrosion protection of structures exposed to extreme high and/or extreme low temperatures.

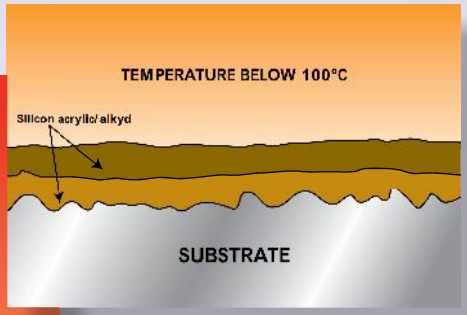
Being both surface tolerant and high build it can be used for high temperature application (hot substrates up to 260ºC) meaning that maintenance can be carried out without needing to shut down the plant.

Jotatemp 650 provides corrosion protection of insulated and non-insulated carbon steel and stainless steel with dry operating surface temperatures. These can range from cryogenic to above 650ºC (intermittent 720ºC) and include cyclic services in temperatures between -185ºC and 540ºC.

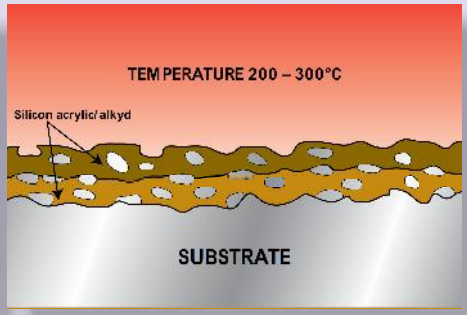
Jotatemp 650 does not contain any zinc and therefore does not have a shortened life span caused by the sacrificial effect.

NO BREAKDOWN AT EXTREME TEMPERATURES

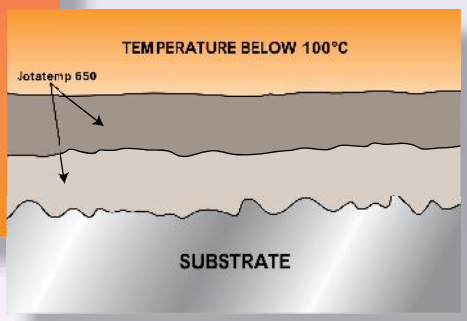
The organic elements in Jotatemp 650 do not breakdown at high heat as they do in silicon acrylics/ alkyds where protection provided by the paint film is reduced – often referred to as the 'Swiss cheese effect'.



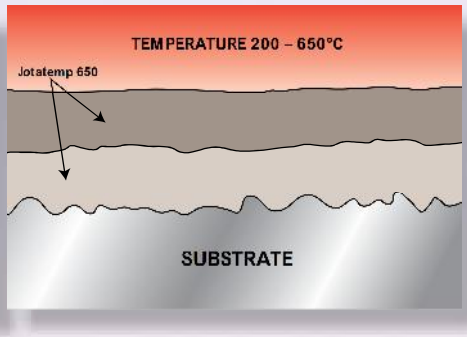
Typical silicon acrylic/alkyd coating using organic binders. Film thickness is low.



As temperature increases the organic binders begin to breakdown. At between 200–300°C the silicon binder leaves vacuoles similar to a Swiss cheese.



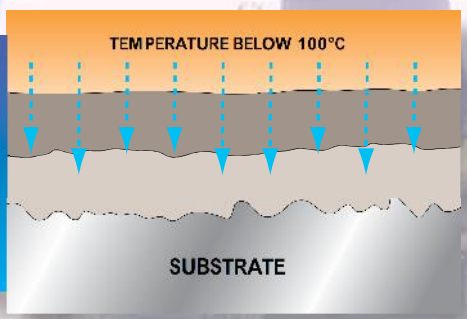
Jotatemp 650 is built of special inorganic binders that have organic modification thus providing excellent application and adhesion.



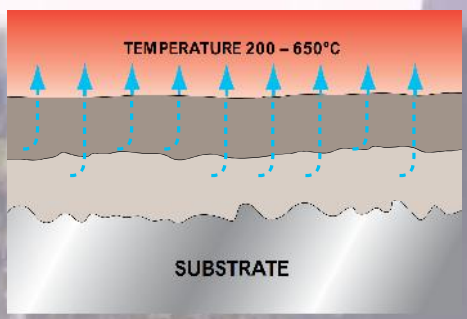
As temperature increases Jotatemp 650 provides a thick consistent barrier protecting the substrate over long periods.

Insulation removed from a pipe originally coated with a zinc containing coating. Zinc has worked but by sacrificing, thus limiting the lifetime of the protection.

BARRIER AGAINST CORROSION



Jotatemp 650 provides a barrier to moisture during periods when temperatures are below 100°C.



As temperature increases the moisture is drawn out of the system.