

# Intertherm 751CSA

## A facility owners guide

### A proven track record of critical problem solving

Trusted cold spray aluminium technology, a specialist solution for high temperature maintenance that challenges everything you know about TSA protection in high temperature/cyclical environments and CUI risk zones.



## Oil and gas facilities like yours,

are often faced with seemingly impossible maintenance challenges where nothing seems to work to protect the asset as required or as is needed to extend the lifespan of the component. This is especially true with insulated assets where previous coatings have failed, when working with high temperature cyclic piping or in situations where production stoppages, required for maintenance are far too costly. For more than 16 years Intertherm® 751CSA has facilitated owners the world over and has proven its unique capability to solve these seemingly impossible problems or where shutdowns weren't practical.



The problem solving solution



Unmatched performance in high temperature cyclical conditions



Bridging the gap between conventional and TSA coatings



Hot apply to 150°C

## Extending Asset value

### Even in high temperature cyclic conditions

In your ongoing effort to ensure the longevity of plant assets, while maintaining safety for on-site personnel and contracted applicators alike, it may be time to rethink the specified coating solutions for components that are subject to highly cyclic temperature environments or reside in the CUI risk zone.

Intertherm 751CSA is not only a critical potential solution for the long-term protection of these components (whether under insulation or not), but its 16-year track-record of proven performance effectively challenges the use of Thermal Sprayed Aluminum in these conditions.



Repeated corrosion inspections has demonstrated peak performance under these adverse conditions during the repair and protection of a chimney stack of an oil fired power station in England, or discovering no Corrosion Under Insulation of insulated piping at a refinery in Sweden after two and a half years of cycling 250 times from 50°C to 290°C, or at a refinery in Spain where heavy corrosion yielded highly uneven surfaces where over-application issues are common, yet proved to be inconsequential problems when Intertherm 751CSA was applied, despite cycling from 12°C to 340°C every two days.



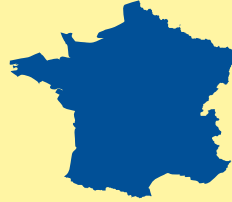
#### REFINERY - AUSTRALIA

### Difficult to prepare surfaces

High temperature changes (cyclic environments) represent perhaps the largest level of complexity for coating specifiers who are responsible for plant protection and safety for three primary reasons:

1. Assets are often critical to production up-time and often require in-situ maintenance.
2. The high temperatures often mean that the specifier is dealing with piping under insulation.
3. The corrosive nature of highly cyclic temperature material processes is vastly different from the corrosive nature of the same material under more normal temperatures.

Specifying Intertherm 751CSA in these areas uniquely provides reliability that the specification is fit for purpose and the assets will enjoy an extended life-cycle while limiting maintenance costs associated to a complex thermal aluminum application. Our customer's refinery in Australia dealt with almost exactly these three challenges trying to adequately maintain two propane treater units that cycled from 40°C to 290°C every seven days. Under these conditions for five years, the existing inorganic zinc primer failed to prevent extensive CUI to the treater units. After applying the Intertherm 751CSA to a properly prepared carbon steel substrate on-site, the coating could be applied during and after the regular exposure to the high cyclic temperatures.



#### REFINERY - FRANCE

### Protecting field joints in thermal sprayed aluminium

Owners need maximum uptime for their critical production assets. Hence many critical repairs need to be performed in the field during normal operation. In some, you or your maintenance crews will be faced with extraordinary challenges such as coating over welding repairs on piping in service with temperature exposures up to 150°C! Our customer at a refinery in France, had this issue where the heat generated from field welding pipe joints was destroying the existing TSA. No other polymeric coating was able to offer long term corrosion protection over these repair areas after being exposed to temperatures of up to 400°C. The Intertherm 751CSA was easy to apply on site and finally provided a solution to this problem.



#### REFINERY - ITALY

### Protecting gas dryer inlet pipe

Which is easier and faster to apply – traditional TSA or Intertherm 751CSA? Well, one of our customers wanted to find out and chose to try both protective products while installing two new dryers at a refinery in Italy. After surface preparation using grit blasting, a single coat 200um thick was applied. The applicator was surprised by how much quicker and easier the Intertherm 751CSA was on the first dryer was compared to the TSA + sealer coat on the second dryer. Even better was the durability of the protection in aggressive cyclic conditions.