

# UPC

Universal Pipe Coatings



# Protect pipes, valves and vessels with one easy solution

The Universal Pipe Coating (UPC) range has been specifically developed to simplify process pipe, valve and vessel coating specifications; maximizing ease of use and delivering excellent long term performance. This allows the UPC approach to virtually eliminate error while reducing cost and driving up performance.

Protective coatings applied to pipes, valves and vessels are required to perform across a wide range of environments and often in highly aggressive conditions:

- Insulated and uninsulated service
- Constant and cyclic operating temperatures
- Onshore and offshore end use
- Carbon and stainless steel substrates
- Temperatures from  $-196^{\circ}\text{C}$  ( $-321^{\circ}\text{F}$ ) to  $650^{\circ}\text{C}$  ( $1202^{\circ}\text{F}$ )

Often large and complex specification documents are employed that cite different types of specialist coatings and areas. This complexity can ultimately lead to confusion, increased cost, and a reduction in asset longevity.

## What if there was a better way?

The UPC range simplifies conventional painting specifications to just two high performance coatings. The result is a straightforward, universal solution that meets the simplification challenge.



## Interbond® 2340UPC

Interbond 2340UPC is suitable for all coating requirements from  $-196^{\circ}\text{C}$  ( $-321^{\circ}\text{F}$ ) to  $230^{\circ}\text{C}$  ( $446^{\circ}\text{F}$ ), covering the majority of end uses. With outstanding corrosion protection in both insulated and uninsulated environments, Interbond 2340UPC challenges the performance expectations of phenolic epoxy-based temperature coatings. Application characteristics also set this technology apart, with excellent tolerance to over application, fast cure even at sub-zero temperatures and unrivaled impact and damage resistance. Interbond 2340UPC is suitable for high temperature maintenance and can be applied onto hot steel up to  $120^{\circ}\text{C}$  ( $248^{\circ}\text{F}$ ).

**Temperature range:**  $-196^{\circ}\text{C}$  ( $-321^{\circ}\text{F}$ ) to  $230^{\circ}\text{C}$  ( $446^{\circ}\text{F}$ )

**Suitable end uses:** Carbon steel, stainless steel, insulated equipment, uninsulated equipment

## Interbond® 1202UPC

Suitable for use from  $-196^{\circ}\text{C}$  ( $-321^{\circ}\text{F}$ ) up to  $650^{\circ}\text{C}$  ( $1202^{\circ}\text{F}$ ) without the need for a heat cure or priming system, Interbond 1202UPC offers the ultimate in temperature and corrosion protection. Its inorganic copolymer resin system brings the flexibility to withstand aggressive temperature cycling while continuing to offer excellent corrosion protection. This combination of corrosion protection and temperature resistance means Interbond 1202UPC is an excellent coating for use beneath insulation and in highly aggressive cyclic temperature environments.

**Temperature range:**  $-196^{\circ}\text{C}$  ( $-321^{\circ}\text{F}$ ) up to  $650^{\circ}\text{C}$  ( $1202^{\circ}\text{F}$ )

**Suitable end uses:** Carbon steel, stainless steel, insulated equipment, uninsulated equipment

## Long term performance in extreme environments

The UPC range is formulated to protect pipes, valves and vessels exposed to aggressive, CUI conditions, whilst also demonstrating excellent resistance to "thermal shock" experienced during rapid temperature cycling. Interbond 2340UPC and Interbond 1202UPC are both approved by international standards for corrosion resistance such as the rigorous ISO12944-9:2018 cyclic aging test, helping to ensure maximum asset lifetime in the most demanding of service conditions.



### Reduce cost

- Less chance of incorrect coating application
- Less rework
- Fewer products to stock and manage
- Less time spent cleaning and purging lines
- Less thinner required

### Improve quality

- Easy-to-apply coatings
- High performance under a wide range of DFTs
- Improved applicator proficiency
- Fewer mistakes
- More consistent finished product

# The UPC approach

Reduces pipe, valve and vessel coating specifications down to just two products making up two coating schemes. This replaces the many different coating schemes normally employed, reducing risk and complexity and improving quality.

Traditional coating specifications

<b>Non-insulated carbon steel ambient to 120°C</b>	Primer Zinc Epoxy	Intermediate Epoxy Intermediate	Finish Polyurethane
<b>Non-insulated carbon steel 121°C to 260°C</b>	Primer Zinc Silicate	Intermediate Silicone Acrylic	Finish Silicone Acrylic
<b>Non-insulated carbon steel 261°C to 540°C</b>	Primer Zinc Silicate	Intermediate Silicone Aluminum	Finish Silicone Aluminum
<b>Insulated carbon steel -196°C to 200°C</b>	Primer Epoxy Phenolic	Finish Epoxy Phenolic	
<b>Insulated carbon steel -196°C to 540°C</b>	Primer Zinc Silicate	Intermediate IMM*	Finish IMM*
<b>Non-insulated carbon steel -196°C to 540°C</b>	Primer Zinc Silicate	Intermediate IMM*	Finish IMM*

Traditional coating specifications

<b>Non-insulated stainless steel ambient to 120°C</b>	Primer Epoxy	Finish Polyurethane
<b>Non-insulated stainless steel 121°C to 260°C</b>	Primer Silicone Acrylic	Finish Silicone Acrylic
<b>Non-insulated stainless steel 261°C to 540°C</b>	Primer Silicone Aluminum	Intermediate Silicone Aluminum
<b>Insulated stainless steel -196°C to 200°C</b>	Primer Epoxy Phenolic	Finish Epoxy Phenolic
<b>Insulated stainless steel -196°C to 650°C</b>	Primer IMM*	Finish IMM*
<b>Non-insulated stainless steel -196°C to 650°C</b>	Primer IMM*	Finish IMM*

**Interbond 2340UPC**

-196°C to 230°C

**Interbond 1202UPC**

-196°C to 650°C

\* IMM is Inert Multipolymeric Matrix coating as defined by the NACE SP0198 standard