

Stage 1

THE GALVANIZING TREATMENT PROCESS

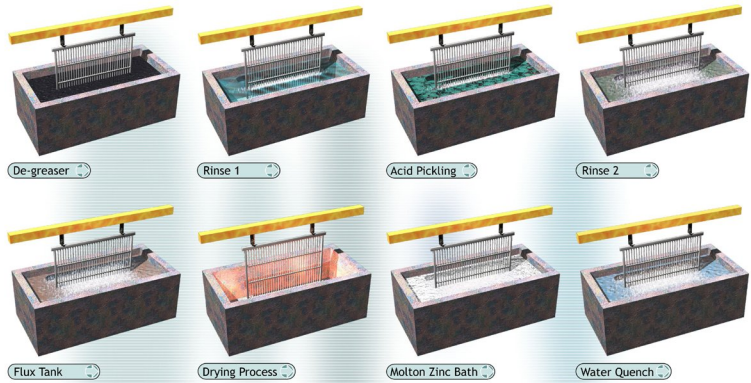
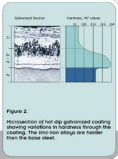


Figure 1
Details of each process.



Stage 2

THE POWDER COATING PRETREATMENT PROCESS

1 Alkali Degrease

Alkali degrease in heated (60 DegC) caustic (sodium hydroxide) solution at 7g/ltr concentration.

2 Rinse x 2

Rinse in water at ambient temperature twice to ensure the Alkali agent is fully rinsed.

3 Acid Etch

Acid / etch stage involving immersion in a heated (60 DegC) mixture of sulphuric and phosphoric acid at 8 to 10% total acid which cleans and de-rusts the substrate.

4 Rinse x 2

Rinse in water at ambient temperature twice to ensure the Acid agent is fully rinsed.

5 Refining Agent

Refiner stage involving immersion in an air agitated mildly alkaline suspension of a titanium powder at 0.75g/ltr concentration and ambient temperature to provide nucleation for crystal formation in the next stage.

6 Zinc Phosphate

Zinc Phosphate stage where immersion in a heated (60 DegC) aqueous solution of Zinc, Phosphoric acid, Nitric acid and other metal ions such as Manganese, Nickel and Calcium produces a complete covering of Zinc Phosphate crystals on the surface of the substrate. The level of Zinc is 0.15% w/v and the total acidity is 4 to 5%.

7 Rinse

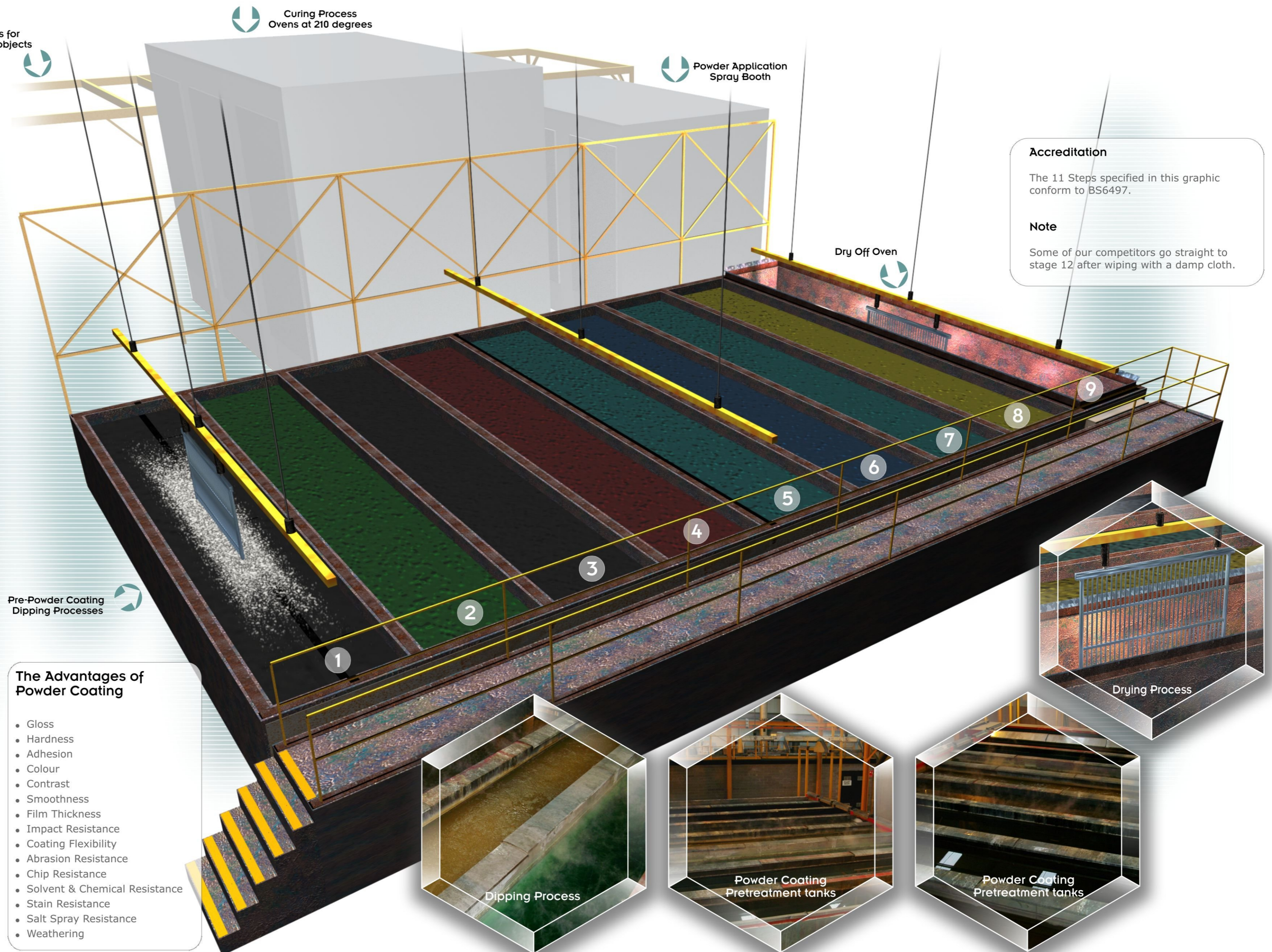
Rinse in water at ambient temperature.

8 Sealer Solution

Sealing rinse stage, the final mildly acidic (pH 3.5 to 4.5) chromium-free post rinse at 0.25% concentration and ambient temperature.

9 Drying Oven

Final pre-treatment stage is the Dry off oven.



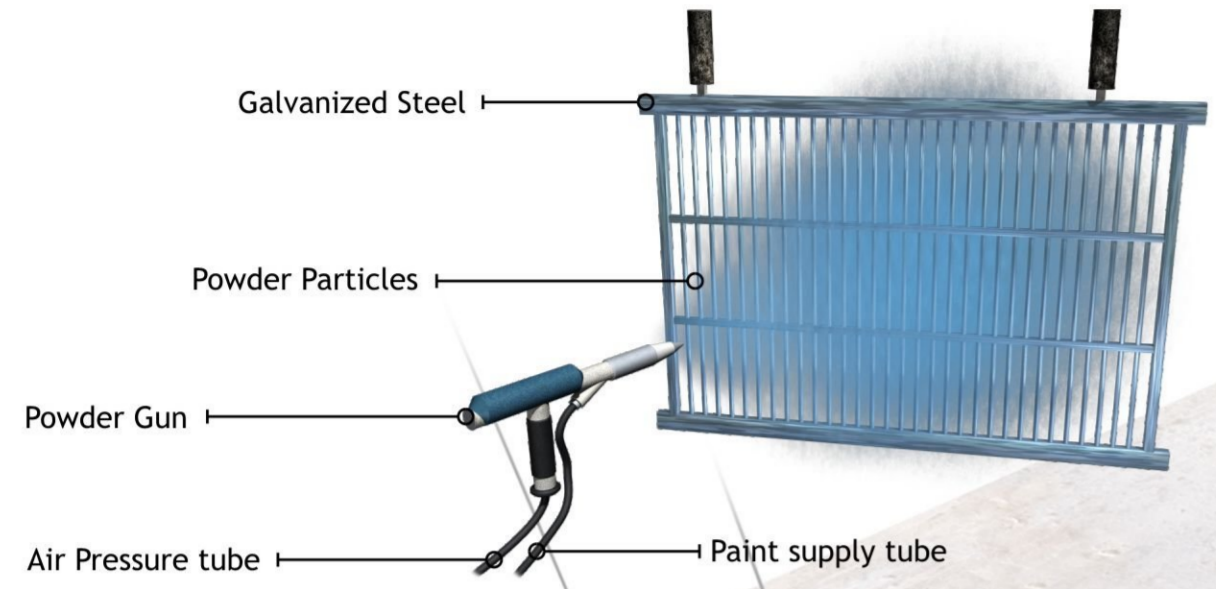
Accreditation
The 11 Steps specified in this graphic conform to BS6497.

Note
Some of our competitors go straight to stage 12 after wiping with a damp cloth.

- The Advantages of Powder Coating**
- Gloss
 - Hardness
 - Adhesion
 - Colour
 - Contrast
 - Smoothness
 - Film Thickness
 - Impact Resistance
 - Coating Flexibility
 - Abrasion Resistance
 - Chip Resistance
 - Solvent & Chemical Resistance
 - Stain Resistance
 - Salt Spray Resistance
 - Weathering

Stage 3

THE POWDER COATING & FINISHING PROCESS



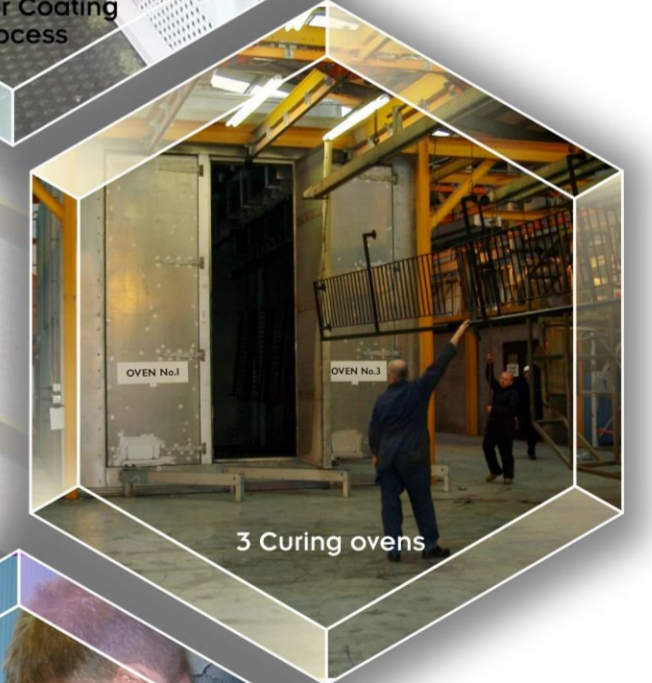
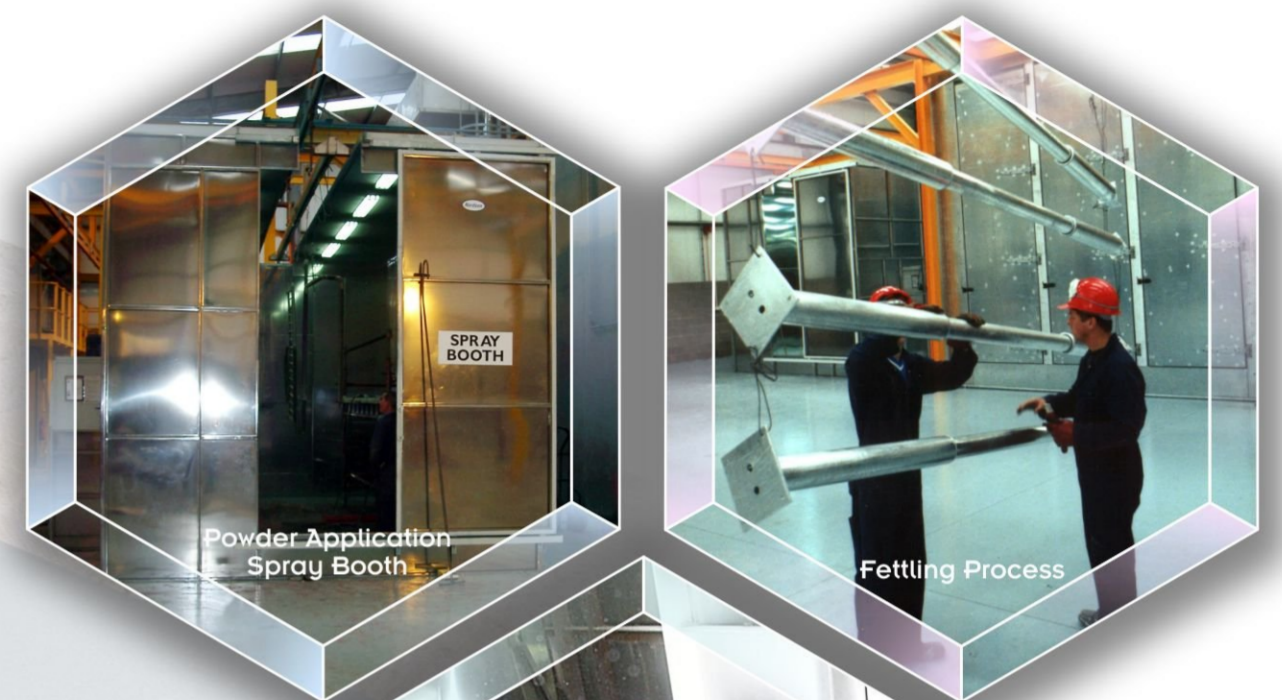
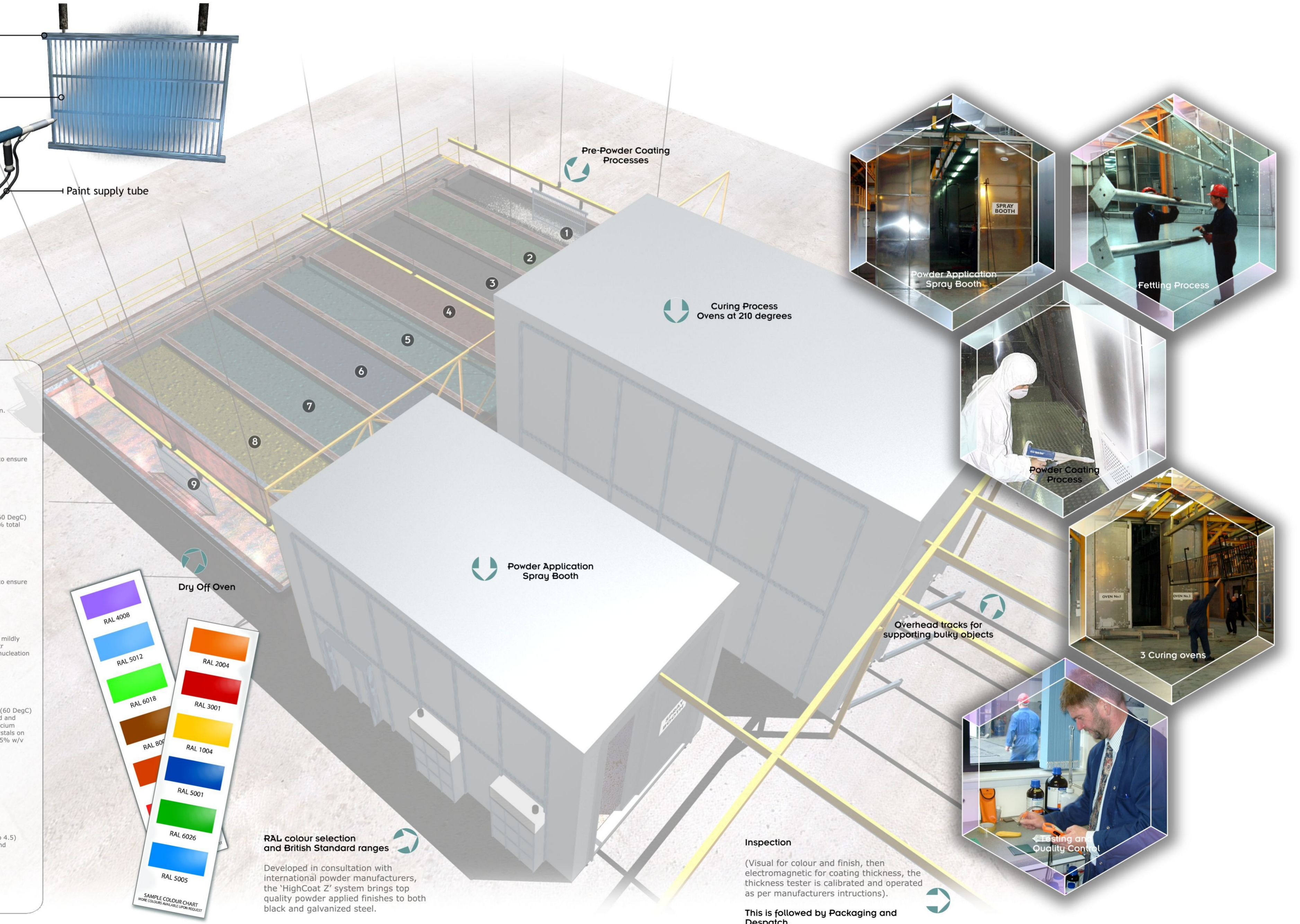
Powder Coating Pretreatment

- 1 Alkali Degrease**
Alkali degrease in heated (60 DegC) caustic (sodium hydroxide) solution at 7g/ltr concentration.
- 2 Rinse x 2**
Submerged in water at ambient temperature twice to ensure the Alkali agent is fully rinsed.
- 3 Acid Etch**
Acid / etch stage involving immersion in a heated (60 DegC) mixture of sulphuric and phosphoric acid at 8 to 10% total acid which cleans and de-rusts the substrate.
- 4 Rinse x 2**
Submerged in water at ambient temperature twice to ensure the Acid agent is fully rinsed.
- 5 Refining Agent**
Refiner stage involving immersion in an air agitated mildly alkaline suspension of a titanium powder at 0.75g/ltr concentration and ambient temperature to provide nucleation for crystal formation in the next stage.
- 6 Zinc Phosphate**
Zinc Phosphate stage where immersion in a heated (60 DegC) aqueous solution of Zinc, Phosphoric acid, Nitric acid and other metal ions such as Manganese, Nickel and Calcium produces a complete covering of Zinc Phosphate crystals on the surface of the substrate. The level of Zinc is 0.15% w/v and the total acidity is 4 to 5%.
- 7 Rinse**
Rinse in water at ambient temperature.
- 8 Sealer Solution**
Sealing rinse stage, the final mildly acidic (pH 3.5 to 4.5) chromium-free post rinse at 0.25% concentration and ambient temperature.
- 9 Drying Oven**
Final pre-treatment stage is the Dry off oven.



RAL colour selection and British Standard ranges

Developed in consultation with international powder manufacturers, the 'HighCoat Z' system brings top quality powder applied finishes to both black and galvanized steel.



Inspection

(Visual for colour and finish, then electromagnetic for coating thickness, the thickness tester is calibrated and operated as per manufacturers instructions).

This is followed by Packaging and Despatch.