

TECHNICAL DATA SHEET**Paintbond 550****Cleaner & Zirconium Coating for Steel**

Description	A treatment which will degrease, and form a protective Zirconium conversion coating on aluminium, zinc and steel surfaces.
Features	<ul style="list-style-type: none">• Used by spray (line or chamber washing machine) or immersion.• It imparts a significantly greater durability to total systems on steel than conventional single stage cleaner/coaters.• Can be run with most mains water.• Degreases normally oily surfaces.• Gives significantly enhanced corrosion resistance.• Treats aluminium, zinc (Mazak/Zintec/Galvanised) and mild steel.• Forms little sludge – low maintenance costs.• Concentrated product for economy.
Product Code	MP0239.
SG	1.08 ± 0.1 kg/l at 20°C.
Coverage	Consumption will depend on bath losses through drag-out and overspray. As a guide the following range has proved reliable: Spray Line: 250 –350 m ² /kilo of Paintbond 550 Spray Chamber: 60 –200 m ² /kilo of Paintbond 550 Immersion: 150 –300 m ² /kilo of Paintbond 550.
Equipment	<p>For Spraying: the whole plant should be constructed of stainless steel and the Paintbond 550 stage(s) should have pumps with stainless steel impellers, etc. and suitable plastic or stainless steel jets. Stainless steel construction will have a significantly longer life than plastic.</p> <p>For Dipping: the tanks should be made of stainless steel with built-up welds, or polypropylene. Rinse tanks can be made of mild steel, preferably painted inside with a suitable paint, although polypropylene, rigid PVC or stainless steel should be used for deionised water tanks and spray equipment.</p>
Initial Fill	Fill the bath with mains water. For every 1000 litres of bath: Immersion: <ul style="list-style-type: none">• Add 10 litres of Paintbond 550.• Warm the tank and stir. Check pointage and temperature prior to commencing processing. Spraying (Line or Chamber): <ul style="list-style-type: none">• Add 4 - 7 litres of Paintbond 550.• Warm the tank and circulate through the spray jets. Check pointage and temperature prior to commencing processing.

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Notes:

1. If the work is significantly oily, PB Detergent Additive B (**MP0241**) may be added to increase emulsification - normally only add up to 1 part PB Detergent Additive B to 20 parts Paintbond 550.
2. To ensure consistent results, frequent adjustments using small quantities of Paintbond 550 should be made to keep within the control limits. Excessive additions at one time can disturb the dynamics of the process and result in poor mileages being achieved. The use of continuous automatic pH control and a dosing system is recommended.

Application

The process sequence is normally:

1. Application by spray or immersion – normally in 1 or 2 stages.
2. Rinse – normally 2 stages (see **Rinsing** below).
3. Dry-off (see **Drying** below).

Control Points

	Immersion	Spray
Titration (Pointage) for Al / Zn	10 – 15	6 – 10
Titration (Pointage) for Mild Steel	3 – 6	3 – 6
Acidity (pH)	3.8 – 4.5	3.8 – 4.5
Time:	3 – 6 min	2 – 4 min
Temperature	30° – 40°C	30° – 40°C
Spray Pressure	n/a	0.8 – 1.5 bar

Analytic Control

Titration: measure 50 ml of the bath into a flask and add 4-6 drops Phenolphthalein Indicator solution. Titrate with 0.1 M sodium hydroxide until the colour changes to a permanent pink. Record the titration ml (pointage) and replenish the tank as below.

A test kit **MP0604** containing all the necessary items is available from Trimite.

Replenishment: to restore to the operating strength, for every 1000 litres of bath, add 750 ml of Paintbond 550 for each point below the operating minimum strength, and mix thoroughly. Repeat the procedure until the bath is within the pointage limits.

Rinsing

By spray: two rinses are normally suitable, but clean water may be more effective if introduced over the work through the last spray risers. The overflowed water can be cascaded to any rinses prior to the Paintbond 550 stage.

By dip: the work should be rinsed thoroughly with water in tanks fitted with weirs and continuously overflowed with mains water. Improved results can be gained by using demineralised water in the final rinse or as a final halo spray. The use of Rinse Aids can enhance performance in some circumstances – please consult Trimite for advice.

Drying

For most reliable results, the work should be dried in an indirect-fired oven, with good air movement, at 70° - 125°C.

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Tank Maintenance	Paintbond 550 forms a little sludge in normal use, which may need periodic removal. The tank should be allowed to settle, the clear liquid transferred to an adjacent rinse tank, the tank and heating surfaces cleaned, and the clear liquid returned. It should then be replenished with water and Paintbond 550.
Shelf Life	2 years from date of manufacture when correctly stored in unopened containers.
Storage	The product should be stored in cool, dry, frost-free conditions, in sealed containers.
Health & Safety	Refer to the product's Safety Data Sheet and safety advice on the product label before use.
Technical Support	For technical support in using this product, please contact: e: birminghamtech@trimite.com , or t: 0121 554 7000.
Date of Issue	Aug 2021.

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