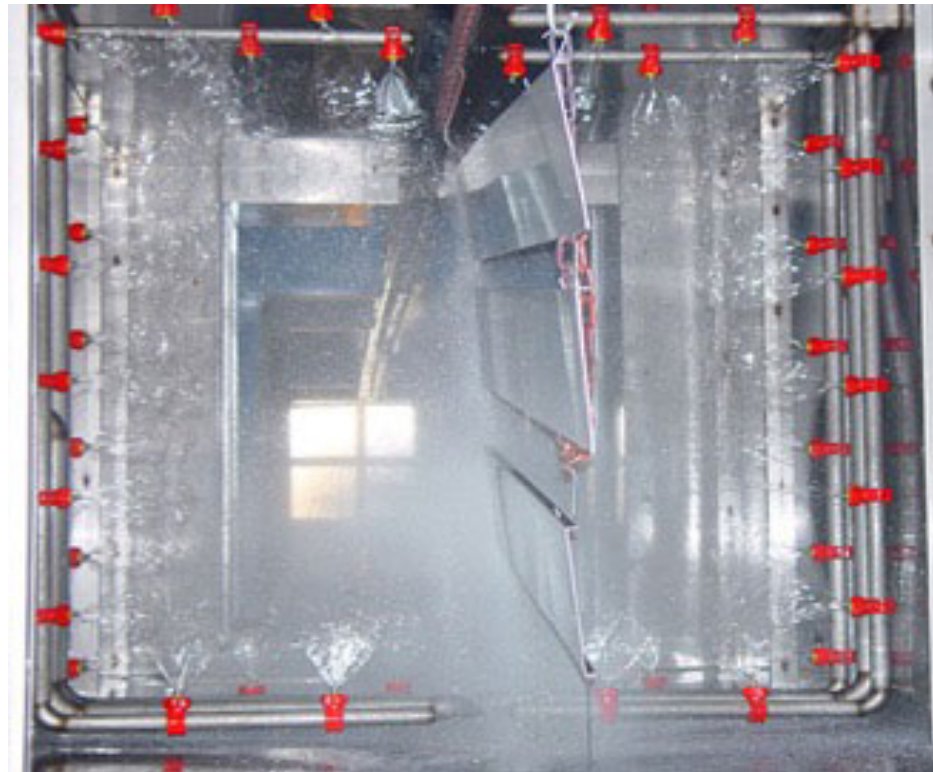


## ONE STEP, NO WASTE, NO HEAT METAL PRE-TREATMENT SYSTEM



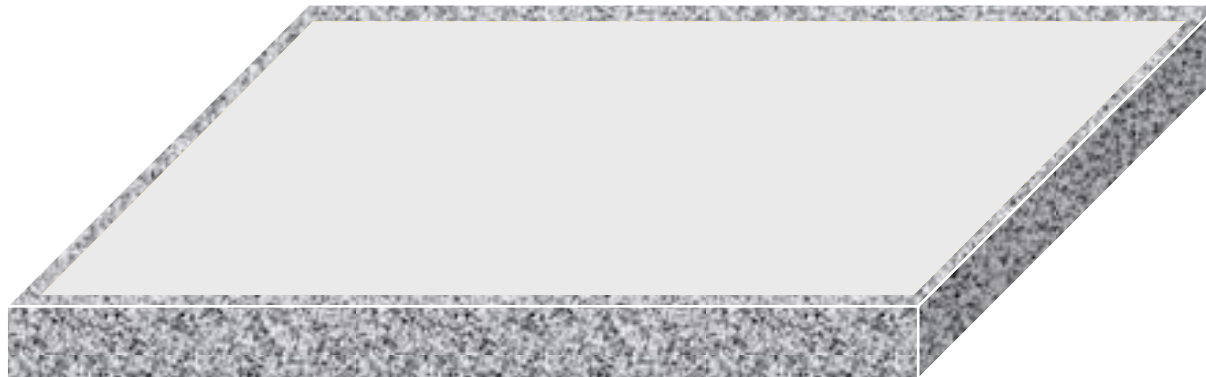
# ONE STEP METAL PRE-TREATMENT

## MAIN FEATURES

- ✓ NO WASTE - Products have unlimited life
- ✓ NO RINSE
- ✓ NO HEATING – ambient temperature process
- ✓ No sludge creation
- ✓ No in-plant analyses or controls necessary
- ✓ Multi-metal process
- ✓ VOC-free
- ✓ Air-drying products available

## How does it work?

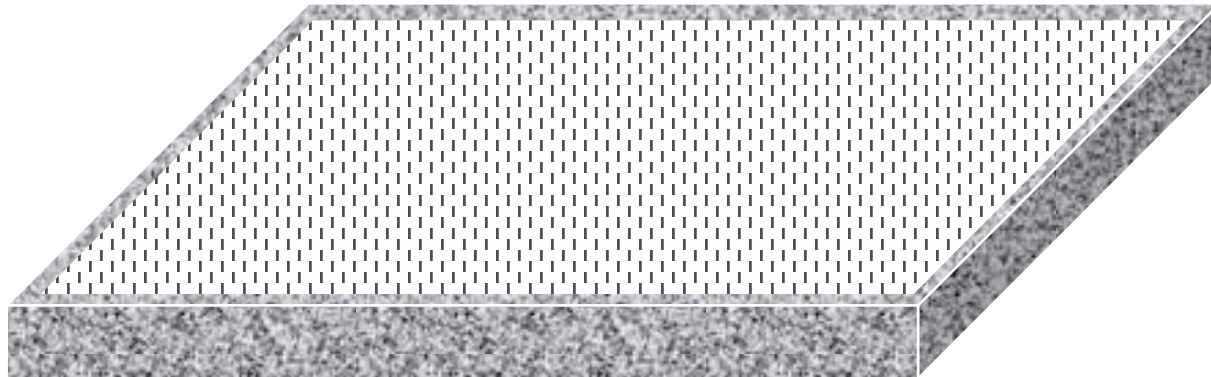
### Step 1:    **Degreasing**



- ✓ Oil on the surface is dissolved

## How does it work?

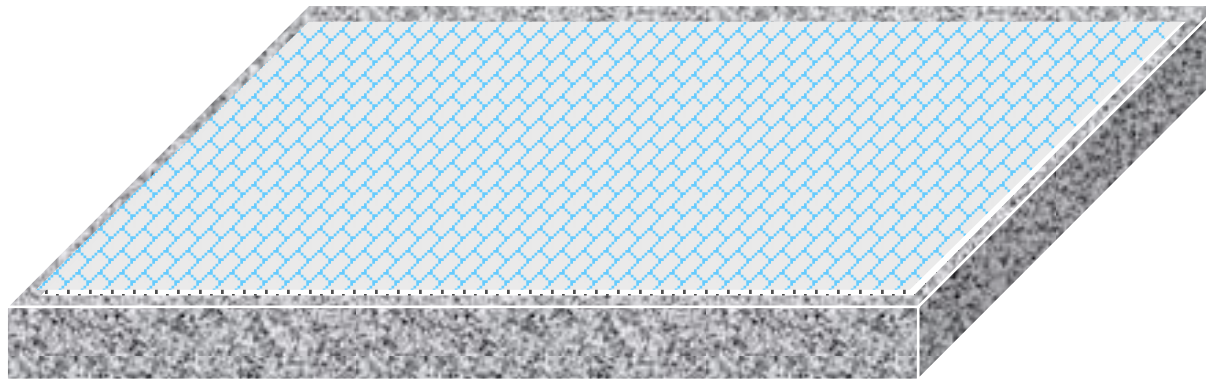
### Step 2:    **Phosphating**



✓ Creation of a chemical ‘bridge’

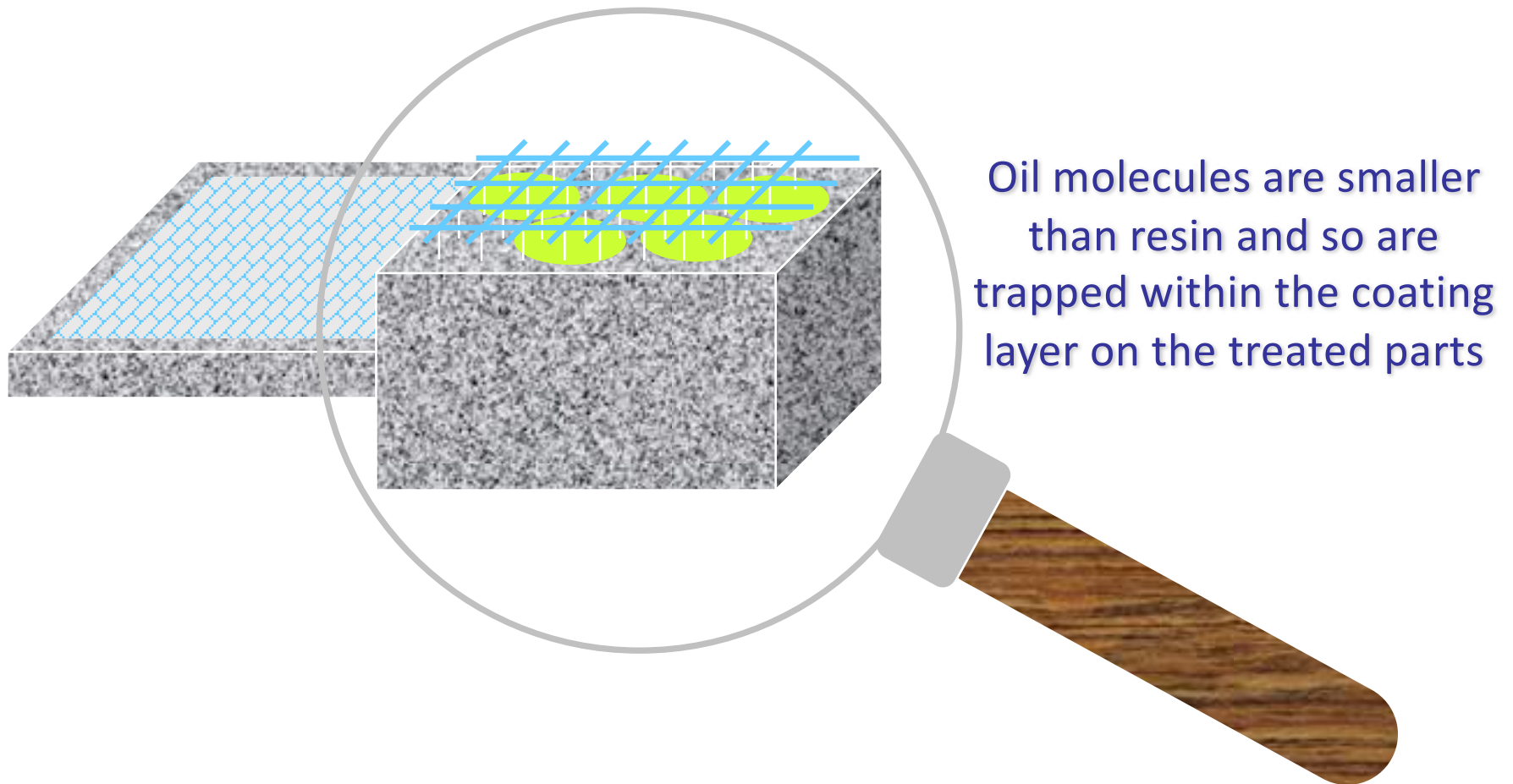
## How does it work?

### Step 3: **Protection**

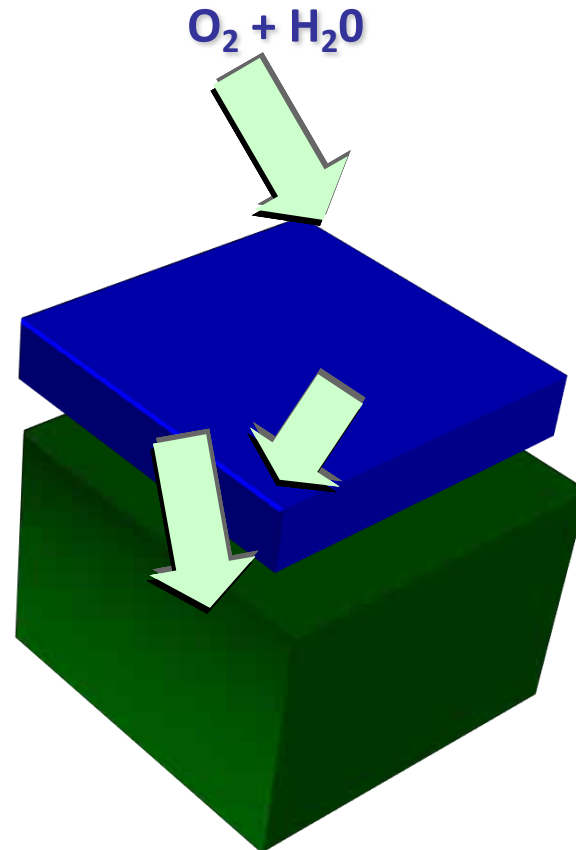


- ✓ Creation of a continuous, uniform thin coating
- ✓ Provides protection against flash rust
- ✓ Increases top-coat adhesion
- ✓ Encapsulates the oils, so no bath saturation

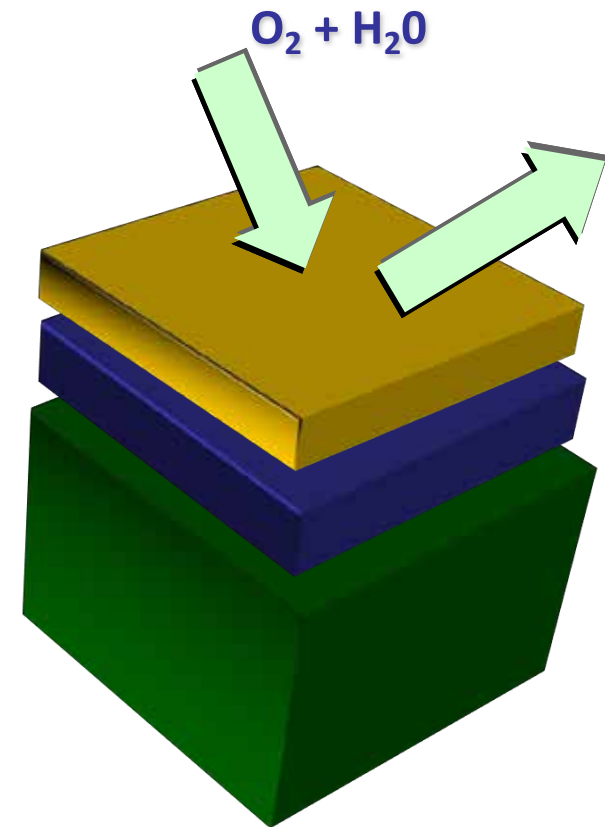
## Why is there no oil saturation of the bath?



## TECHNICAL ADVANTAGE – No flash rust



Conventional  
phosphating

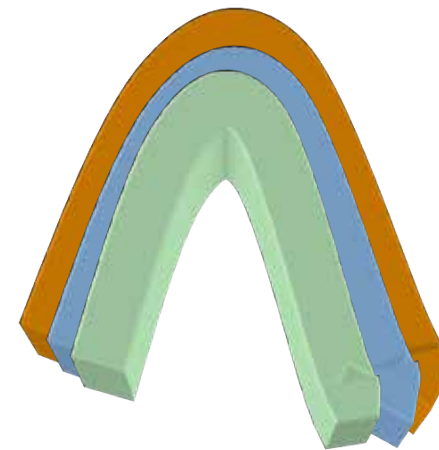
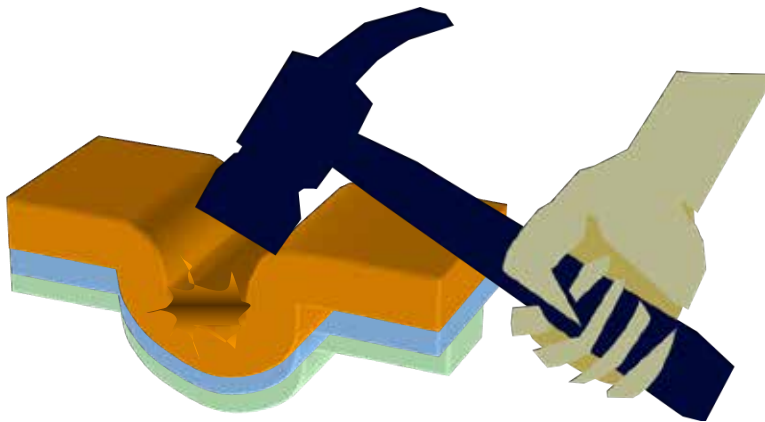


Our Technology



## TECHNICAL ADVANTAGE – Mechanical properties

- ✓ Improvement of top-coat adhesion
- ✓ Excellent flexibility and impact resistance
- ✓ Compatible with wet paint and powder coating





## **TECHNICAL ADVANTAGE – Very easy maintenance**

- ✓ No in-house titration required
- ✓ Top up tank as required
- ✓ Simply send a sample every 3 months to our lab to ensure optimal performance
- ✓ 3 monthly reports are free of charge from our lab

## Technical Advantages

Corrosion resistance on steel with wet paint or powder coating

### Our Products

**PAI-KOR**

**ECO-FLOR**<sup>®</sup>  
s y s t e m

**TORAN 3**

100 h

150 h

200 h

300 h

400 h

500 h

700 h

1000 h

+

✓ *degreasing*

✓ *iron phosphating*

✓ *iron phosphating + sealing*

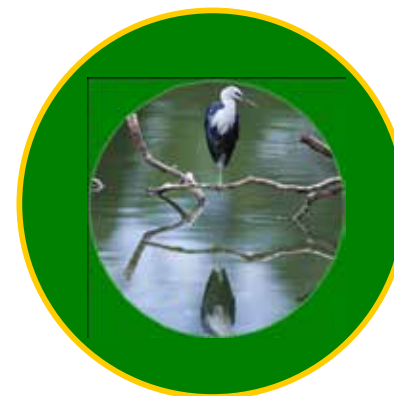
✓ *Iron microcrystals phosphating + zinc sealing*

✓ *Iron phosphating + phosphating + sealing with Cr6+*

## GO GREEN WITH ONE-STEP PROCESS



no sludge generated



no waste water

no water pollution



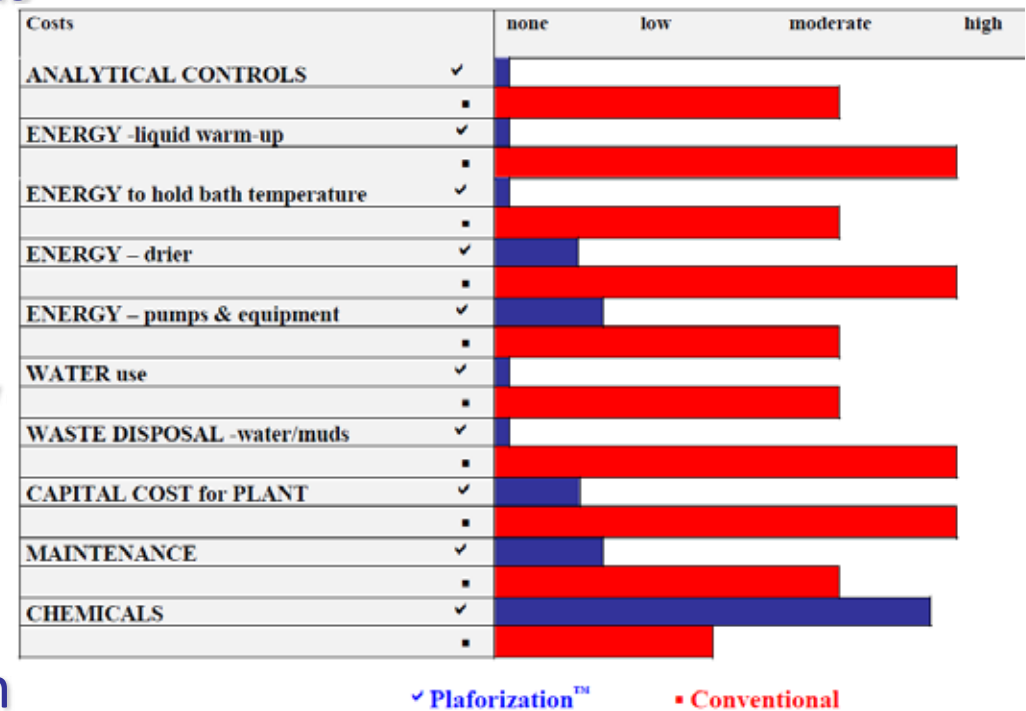
no CFC or HCFC

no aromatic, chlorinated or halogenated  
solvents

reduction of CO<sub>2</sub> emissions

## SAVE MONEY WITH ONE-STEP PROCESS

- ✓ Reduced capital investments
- ✓ No cost for heating of any liquids
- ✓ No cost for waste water treatment or sludge disposal
- ✓ Energy costs are reduced to a minimum
- ✓ Maintenance costs are very low
- ✓ No production downtime
- ✓ No production rejection
- ✓ Very simple cost control system



## APPLICATIONS

- **DIP**
- **SPRAY**



Static dip tank



Spray booth



Spray tunnel

**Spraying/dipping time**  
**60 – 90 secs**

**Dripping off**  
**6 minutes**

**Drying off (variable temp.)**  
**6 - 10 minutes**

## SUPPLIED INDUSTRIES:

- ✓ metal furnishing
- ✓ automotive industry components
- ✓ electromechanical industry
- ✓ machine tools
- ✓ military
- ✓ heating and air conditioning
- ✓ metal wire working industry
- ✓ plate and signal
- ✓ paint shops /subcontractors

## BENEFITS OF ONE-STEP PROCESS

Efficiency	Quality	Environmental
Fastest pre-treatment process available	Higher corrosion protection compared to zinc phosphating	Reduction of CO2 emission
Minimal maintenance required	Immediate protection against flash rust	No water used No waste etc
Very quick payback of investment	Multi-metal process	Reduction of electrical consumption
No rework or rejection	Consistent results	No exposure to toxic substances or carcinogens





✓ For more information please contact Metavate Ltd or visit our website

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✓ [info@metavate.co.uk](mailto:info@metavate.co.uk)