

Metalshield®

# FAQ's

# **Dulux Metal**shield®

## FAQ'S

### The (New) Dulux<sup>®</sup> Metalshield<sup>®</sup> Range

#### Is thinning required for the topcoat? If so, is a special thinner required?

• Water is the only thinner needed. If in areas where "BORE WATER" is only available, then bottled or distilled water is preferred. Some BORE WATER sources around New Zealand contain iron pyrites that on contact with the air will slowly oxidise to Iron Oxide and give a rust colour to the product or surface that they are applied.

## Will there be a spray thinner (to give a better result than just water) for (Trade) spray application?

• Water alone will give the desired result. The viscosity of this product is designed in a way that can be used with both airless and air assist spray. If dilution is required water is the only thinner required to be used up to 50 ml/L. If spraying, min 70 Micron DFT should be used for best corrosion resistance performance.

#### Will all can labels correspond across the different markets?

• All can labels contain the direction of use for the residential market. A reference has been added to the label that for any commercial and industrial use, the customer should make contact with a Protective Specialist as their may be further surface preparation required.

#### Will there be a primer for aluminium?

• To achieve the best result Metalshield Etch Primer or Metalshield All Surface Primer can be used.

#### Can I use this system on plastic surfaces (plastic mouldings may adjoin the metallic surface)?

• The RIGID plastic we might find around most construction sites is generally uPVC. Metalshield Rust Defence will bond to uPVC. If the plastic is not uPVC then it will need to be identified. Note that Metalshield Rust Defence will NOT adhere to polyethylene, polypropylene or teflon.

#### What application tools are recommended to apply this system?

• It can be applied by a good quality brush, roller or spray. A 10 mm nap roller is recommended.

#### Can you spray the primer & topcoat?

• Yes - you can spray both.

#### Is it truly water-based, or just water wash up?

• Yes, it is a true water-based system, containing no oily-based resin components. In addition to being waterbased, you can also clean up with water, making it more environmentally friendly than other solvent or oil-based products on the market.

## Dulux<sup>®</sup> Metalshield<sup>®</sup> Rust Primer<sup>™</sup>

#### How is Rust Primer different to a conventional rust converter?

- Most rust converters rely on conversion of the existing rust using phosphoric acid to form a layer of iron phosphate (which provides short-term corrosion resistance). However, these converters generally do not contain any binder or secondary components to seal the converted surface, so there is the possibility of reactivating the rusting action if exposed to water in future.
- The new Metalshield Rust Primer uses an organic chelating agent to convert the rust to an organometallic material that will no longer cause rusting. This chelating agent is present with a unique binder that has extremely high resistance to the migration of moisture and oxygen through the dry film.
- When we look at rust on mild steel, we will commonly see it appear in multiple localised areas and forming small "pits" in the surface. These are generally the result of small rust cells forming on the surface. These cells form in the presence of water and sometimes, assisted by salt, can cause further rusting to occur on the steel surface.
- Rust needs water, oxygen and iron to form. The new primer prevents oxygen and water from coming into contact with the metal surface. As a result, existing rust on the surface is converted to an inert form and any that may still exist (in deep pits on the surface) is encapsulated under a layer of primer that stops further water and oxygen penetrating through to reactivate the rust.
- Other competitors need TWO products to do what this product will do in ONE.

# **Dulux Metal**shield<sup>®</sup>

# Once my metal surface is flake-free and sanded, why isn't it necessary to remove all traces of rust?

- The Primer locks out the oxygen and water that is necessary for rusting to continue. In doing so, we only need the primer to obtain a good bond to the surface and it will then protect the original rusted areas.
- The Rust Primer contains an organic chelating agent that converts the rust to an organometallic material that will not continue to rust. The primer also contains a polymer that prevents oxygen and water from coming into contact with the metal surface, thereby preventing further rusting from occurring.

#### Will Rust Primer still work if I remove all of the rust?

• Yes, it will work on rust free bare iron and steel surfaces. If the surface is rust-free, Rust Primer is not required.

#### How does Rust Primer convert the rust?

• The primer has an additive that reacts with the rust and turns it into an unreactive material that will not rust in the future. Once conversion is complete the primer will look black on your surface.

## If Rust Primer is water-based, how do I know it's not going to add moisture to the rust and make it worse?

• It requires special chemistry in the paint polymer to provide this resistance to oxygen and moisture penetration. Once dry after application, the polymer will not reactivate if wet and will not allow moisture through to the metal surface.

#### How do I know Rust Primer has neutralised any rust on the surface?

• The primer will turn black.

#### Doesn't all paint eliminate oxygen from the surface, how is Rust Defence different?

• No, to stop moisture and oxygen moving through the film, we need to use special polymers that have a molecular structure. This structure locks together so that moisture and oxygen can not "fit" through the gaps in the film's molecular structure.

#### What does 'Cationic Acrylic' mean in regards to the Rust Primer?

• In basic terms, it refers to the chemical makeup of the formula and the unique technology in the product that gives it its unique benefits and features.

#### Has Rust Primer been tinted? If so, why?

• No, it is not tinted, but it will present as a green to brown semi-opaque liquid. It should NEVER be tinted.

#### **Do I need to stir Rust Primer?**

• The jerry should be agitated for 15 seconds or so. It will also help if the jerry is inverted a few times while it is being shaken.

#### How do I apply Rust Primer straight from the bottle?

• You don't apply direct from the bottle. After shaking, decant the desired amount into a roller tray or a plastic container and apply it from there.

#### How do I know I have applied enough primer?

- You should not be able to see the surface much (if at all) beneath the primer. If there does not appear to be enough on the surface then apply a second coat.
- **TIP:** If following your first coat, you can still see yellow/orange patches, apply a full second coat to the entire surface.

#### How do I recycle the plastic jerry cans?

• Once empty, take off the lid, drain any contents onto newspaper to dry and place the empty container in the domestic or trade plastic recycle bin. Place the dry paint on paper in conventional landfill rubbish.

#### What bucket/pot/roller tray should I pour the primer into?

• Any plastic container with reasonable access made from plastic.

#### Do I always need to apply the Rust Defence Primer prior to applying the topcoat?

• We recommend the use of the Rust Defence Primer for rusted metal surfaces. For other non-rusted metal surfaces you may or may not need to apply a primer, depending on the condition of the substrate. If the substrate is in good condition, just sand/scuff the surface and then apply the Rust Defence topcoat in your chosen colour.

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## Dulux<sup>®</sup> Metalshield<sup>®</sup> Rust Defence<sup>™</sup>

#### I've always used Metalshield Premium before, can Rust Defence go over Premium?

• Yes, but you will need to prepare the surface accordingly (i.e remove flaking paint, sand/scuff) and then apply your recommended primer and allow to dry before applying your chosen Rust Defence topcoat.

#### What does modified acrylic mean? What's it modified with?

• Modified acrylic means that the paint binder is composed of a mostly acrylic resin that has some specific additional components (modifiers).

#### Why are there no coloured bases?

• By moving away from pre-tinted colours we are able to offer a range better optimised for consumer demands. More than 1,000 Dulux colours will be available using the Vivid White, Deep, Ultra Deep and Extra Bright bases.

#### What colour tints can be used?

• Rust Defence topcoats can be tinted to Dulux<sup>®</sup> Colours of New Zealand through standard point of sale tint machines – which means you can now obtain a cohesive 'whole of home' colour scheme across our exterior Dulux product ranges; Weathershield<sup>®</sup>, Concrete and Paving<sup>®</sup> and Metalshield.

#### Does it come in Colorsteel<sup>®</sup> colours?

• It can be tinted to these colours. The Satin sheen is recommended for those wishing to achieve a Traditional/ Standard Colorsteel® finish.

#### What is the difference in performance of Rust Defence vs Metalshield Premium, Metalshield Epoxy, Dulux Super Enamel and Dulux Aquanamel?

• All of these products have unique benefits that are tailored to their target substrate. Metalshield Rust Defence has been specifically formulated to protect and rejuvenate metal, while resisting chalking and promoting sheen and colour retention. We expect Rust Defence to outperform comparative solvent-based systems on appearance of substrate, following exposure to the elements over time.

## If coating a large area, how can I extend the dry time (topcoat touch dry time = 30 mins; recoat = 1 hour)?

• In most cases, large areas will be sprayed or rolled. If you need to extend the open-time, then the addition of water will assist. This is a functional coating so the addition of materials like open-time extender products containing surfactants and glycols is absolutely not acceptable.

#### What is the maximum tint amount for the topcoats (max 3Y/litre)?

• Maximum 2Y/litre for white bases and maximum 3Y/litre for other bases.

#### What other substrates can I use the topcoat on?

• Most metals and uPVC as a direct to substrate. The topcoat will adhere directly to galvanised steel and Zincalume<sup>®</sup>. It will also bond to the current solvent based primers available in the Metalshield range and also to Dulux All Metal Primer and a range of other Dulux water-based primers.

#### Do you need to thin the primer & topcoat in order to spray?

• The primer doesn't require thinning but the topcoat will. This will depend on the base used to derive the colour and the amount of tinter used. It is best to check for consistent spray at time of application. Up to 50ml/litre is recommended.

#### What thinner is recommended?

• Water only.

#### Can All Metal Primer be used in conjunction with Metalshield topcoats?

• Yes, this product is suitable for all non-rusted common metals.

#### Can the new products be used in coastal areas?

• Within 1km of the shoreline is considered a harsh corrosive environment. Dulux Rust Defence Topcoat is recommended in conjunction with All Surface Primer for best protection.

#### Is Rust Defence suitable for high traffic areas, such as stairs?

• We do not recommend the use of Metalshield Rust Defence system on metal stairs.