

# PAINTING

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## **PAINTING**

### **STEP 1**

Prepare the vehicle for painting.

Under NO CIRCUMSTANCES should chemical paint stripper be used.

### **STEP 2**

Thoroughly degrease and mask vehicle.

### **STEP 3**

UK MoD Def Stan 80-15 Etch Primer to spray onto bare aluminium surfaces

Say 4 Litres per vehicle + Thinners

### **STEP 4**

UK MoD Def Stan 80-207 Primer

Say 8 Litres per vehicle + Thinners

### **STEP 5**

UK MoD Def Stan 80-208 Infra Red Reflective Matt NATO Olive Green

Say 8 Litres per vehicle + Thinners

### **STEP 6 OPTIONAL**

UK MoD Def Stan 80-213 Infra Red Reflective Anti-Slip Matt NATO Olive Green

Say 2 Litres per vehicle + Thinners

Only use in areas where Non-Slip coating is required i.e. Front Decking

## PAINT DATA

### 1 UK MoD Def Stan 80-15 Etch Primer

**Key Features** A two-pack, ambient curing, etch primer designed to provide the maximum possible resistance to filiform corrosion. It promotes excellent adhesion between epoxy and polyurethane primers and a variety of light alloys and steel.

**Specification Approvals**

UK MOD AFS 1806

BS2X32

DTD 900/6064

Rolls Royce MSRR 9064

Italian MOD AER-MP-027A

**Specification – Performance**

**Catalyst thinner**

**Thinner/Reducer** (anti-chill) or (general use)

**Pack Size** 10 litre kit or 5 litre base only

**Mix Ratio** 1 Volume

**Recommended Schemes** Use direct to metal as an etch primer under BS2X33 type polyurethane or epoxy primers or Def Stan 80-206 type primers where the use of an etch primer is required.

**Product Application Parameters**

**Surface Preparation** Ensure surfaces are clean and sound and free from any contaminants. Observe recommended over-coating windows.

**Preparation** Stir the base component thoroughly to fully incorporate any slight settlement.

**Mixing** Mix base, catalyst thinner and reducer together. Mix by volume as recommended.

**Viscosity @ 23°C** Apply as mixed

**Induction Time** None Required

**Pot Life @ 15 to 35°C** 4 Hours

**Application method** It is compatible with most types of spray equipment but is not suitable for application with electrostatic spray equipment.

Apply a light wet closed film to achieve a dry film thickness of 4 – 8 microns.

The applied coating should be an iridescent yellow to a golden colour. Dark brown to black colour applications should be avoided as this would indicate over application and excessive film build.

**Recommended Application Temperature** 15°C – 30°C

**Conditions** Relative Humidity 30 % – 85 %

## 2 UK MoD Def Stan 80-207 Primer

### Description

A two-pack low VOC solvent-borne polyurethane primer suitable for application on pre-treated Aluminium. It is intended for use on military vehicles and equipment. It offers ease of application and quicker drying times than waterborne products and a short time between application of primer and topcoat typically 1 hour.

### Approvals

Meets the performance requirements of Def Stan 80-207/2

**Colour** Green (approx. BS381C 283)

**Gloss Level** <10 gu/60°.

**VOC (prepared for use)** 325 g/litre

**Dry Film Density -**

**Materials Base**

Activator

**Flash Point (Abel Closed Cup)**

22°C

**Mix ratio** Base 4 volumes

Activator 1 volume

**Mixing Instructions** Stir the base component thoroughly to fully incorporate any slight settlement. Mix the 2 components in the correct ratio and thoroughly stir before use.

**Pot Life** 1.5 hours

**Application** (15 – 30°C / 50-80% RH) Guidance Only

**Method Tip Pressure**

**Air-Mix** 4/13 4.5 bar

**Airless** 3/11 60psi

**HVLP** 1.8 – 2.0 fluid tip

By spray, using air mix, or HVLP equipment at 15-30°C, 50-85 RH. Apply one cross coat, sufficient to achieve 35 – 45µm.

**Recommended Dry Film Thickness** 35 - 45 µm

**Coverage** 18 m<sup>2</sup>/litre (DFT 40µm)

**Drying Times** (23°C/50%RH)

Touch dry 1 hour

Dry to Tape 3 hours

Dry to Overcoat 1 hour

Dry to sand 3 – 72 hours

Full cure 7 days

**Note:** Wet on wet scheme, overcoat after 1 hour.

**Force Drying** 1 hour at 60°C or 1.5 hours at 40°C is equivalent to 3 hours at 23°C.

**Storage**

The shelf life of the product is 24 months from the date of manufacture when stored between 5 and 35°C in its original unopened container. Storage facilities should be in accordance with local legislation.

## 3 UK MoD Def Stan 80-208 Infra Red Reflective Matt NATO Olive Green

**Product Description** IR Reflecting Low VOC Polyurethane Topcoat, Near-Matt

**Key Features** High solids, VOC compliant, polyurethane topcoats possessing excellent chemical resistant properties.

Intended for use both as internal topcoats for aircraft structural components as well as external topcoats for military aircraft and vehicles. As external topcoats it possess excellent UV resistance and long term durability.

Intended, as part of high performance camouflage systems, for use over Def Stan 80-206/2 and Def Stan 80-207/2 primers.

**Specifications – Approval** UK MOD Def Stan 80-208/2

**Specifications – Performance** Meets the performance requirements of Mil-C-46168.

**Catalyst/Hardener/Activator**

**Thinner/Reducer** Not Applicable – product is ready for use

**Pack Size** Base 3Lt Tin 5Lt Tin

Activator 1Lt Tin

**Mix Ratio** 3 Volumes to 1 Volume

**Recommended Schemes** Apply over the following recommended primers :

Def Stan 80-206

Def Stan 80-207

**Surface Preparation** Ensure surface is clean and sound and free from any contaminants.

Observe recommended overcoating windows for primers.

**Preparation** Base component may require mechanical agitation. Ensure all pigment is adequately dispersed.

**Mixing** Mix base and hardener together and ensure well mixed. Product is then ready for use.

**Viscosity** Not Relevant – see above

**Induction** Not Required

**Pot Life @ 23°C** Maximum 4 Hrs

**Application Method** Apply 1 – 2 cross coats to achieve required thickness

**Recommended Application** Temperature 15° – 35 °C

**Conditions** Relative Humidity 30 – 85 %

## 4 UK MoD Def Stan 80-213 Infra Red Reflective Anti-Slip Matt NATO Olive Green

**Product Description** Polyurethane non-slip brushing topcoat IRR

**Key Features** A two-pack, cold curing, durable polyurethane coating which is designed to give the maximum slip resistance for footwear on the sloping surfaces of armoured fighting vehicles. The colouring and extender pigments have been selected to maintain the colour and Infra-Red Reflecting properties required by Def Stan 00-23.

**Approval** Def Stan 80-213 (replaces AFS 1987)

**Performance** When tested on clean surfaces prepared in accordance with TS 10314, it will pass or exceed the requirements of AFS 1987.

**Catalyst/Hardener/Activator**

**Thinner/Reducer** none

**Pack Size** 3.5 litre kit

**Mix Ratio** 6 Volumes to 1 volume

**Product Application Parameters**

**Surface Preparation** Ensure primer surface is clean and sound and free from any contaminants. Observe recommended over coating windows.

**Preparation** Stir the base component thoroughly to distribute aggregate evenly.

**Mixing** Mix base and hardener together. In order to ensure VOC compliance mix by volume as recommended – do not adjust viscosity.

**Viscosity @ 23°C** Not Relevant

**Induction Time** Not Required

**Pot Life @ 23°C** 6 Hours

**Application method** FP34 is designed to be applied by brush.

**Recommended Application Temperature** 15°C – 30°C

**Conditions** Relative Humidity 30 % – 85 %

**Equipment Cleaning** Cleaner is recommended.

**Dry Film Thickness** NA

**Drying Times @ 23°C**

**Time between coats** 16 to 24 Hours

**Full cure** 7Days

**Physical Characteristics**

**Colour** NATOGreen BS 381C/285M

**Coverage** 5.35 m<sup>2</sup> per litre @ 125 µm d.f.t (theoretical value, no loss)

**Mixed ready for use VOC Content** (ASTM-D 3960) 315 g / litre

**Mixed, ready for use Flash Point** (Abel closed cup) 20°C

**Shelf Life** The storage life is twenty four months from date of manufacture when stored at temperatures between 5°C and 35°C in the original unopened containers.

Partly used containers must be resealed immediately after use.

Once opened, the activator must be used within two months.

### NOTE:

**FOR ALL PAINT PRODUCTS ALWAYS READ AND OBEY HEALTH AND SAFETY DATA**