System Sheet 3 - TrimaKote A98

Paint, Finishing, Two Pack Epoxide, Air Drying, Spraying To Meet Specification Def Stan 80-161 (formerly DTD 5555A)

Description

This Specification relates to a high quality, air drying Two Pack Epoxy paint scheme, providing a durable system for use on components used in the Aviation and Defence Industries. The system is normally applied over suitably pretreated aluminium alloys or steel. A correctly applied scheme will produce a tough, abrasion-resistant surface, capable of withstanding contact with saline conditions, as well as with a range of mineral and synthetic ester lubricants. Additionally, resistance to various chemicals is superior to that achieved by single pack air drying materials.

Finish

Full Gloss, Semi-gloss, Eggshell and Matt.

Complies With

Meets the performance requirements of DEF STAN 80-161.

Product Code

-/A98/- .

Volume Solids

Please consult Trimite.

VOC's

Please consult Trimite.

Colour Range

Limited colour range to DEF STAN requirements.

Systems

The finishing scheme shall consist of one or other of the following combinations of Materials, all of which are available from Trimite:

Scheme	Scheme Section	System
Scheme I	(i)	Etch Primer and Finish A98
	(ii)	Epoxy Primer and Finish A98
Scheme II	(i)	Etch Primer, Filler and Finish A98
	(ii)	Epoxy Primer, Filler and Finish A98
Scheme III	-	Etch Primer, Epoxy Primer and Finish A98

- Note: other schemes can be specified, particularly for non-metallic substrates.
- There are two recommended Epoxy Primers:
    - IP9064, approved to BSX33 types A and B;
    - AP45, meeting the corrosion requirements of DEF STAN 80-184.

  The BSX33 (code IP9064) epoxy primer contains strontium chromate, which is classified as a SVHC and requires authorisation, and may only be used for coating aerospace related components.
  The AP45 does NOT contain strontium chromate.
- The Epoxy Filler is approved to DEF STAN 80-216.

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Film Thickness, Coverage & Overcoating

Coating Type	Dry Film Weight g/m²	Dry Film Thickness µm	Coverage m²/l	Minimum Air Drying before Overcoating	Remarks
Etch Primer	20 – 25 g/m²	10 – 12 µm	6 – 7	2 h	Normally only applied if no other pretreatment has been used
Epoxy Primer to BSX33	25 – 35 g/m²	13 – 18 µm	11 – 15	4 h	Apply over a suitable pretreated surface
Epoxy Primer to DEF STAN 80-184	25 – 35 g/m²	13 – 18 µm	11 – 15	8 h	Apply over a suitable pretreated surface
Epoxy Filler	60 – 77 g/m²	31 – 40 µm	7 – 10	4 h (16 h if wet flatting)	Wet flat with 800 grade paper if required
Gloss & Semi-gloss A98 Finishes	24 – 34 g/m²	21 – 30 µm	10 – 14	16 h	Apply one or two coats
Eggshell & Matt A98 Finishes	34 – 51 g/m²	17 – 26 µm	10 - 16	16 h	Apply one or two coats

The coverage figures shown take account of normal spraying losses.
The gloss levels achieved can vary noticeable. These finishes are influenced by application viscosity and film thickness. Consult Trimite for advice if required.

Force Drying

When it is required to accelerate the drying process, temperatures up to 70°C may be used, but final finishing coats must be allowed to dry at room temperature for at least one hour prior to force drying.

Surface Preparation

- All surfaces should be dry and cleaned as necessary to remove all oil, grease, corrosion or other contamination.
- Surfaces must be cleaned in accordance with DEF STAN 03-2.
- When an etch primer is specified, TrimaEtch **SAP2** (Base Component SAP2 and Acid Component SAR2) is recommended.

Mixing

All DEF STAN 80-161 materials are supplied in two parts, a Base and a Curing Agent. It is essential that mixing instructions, given in this sheet and also found on the labels, are followed. The correct Thinner must be used.

All materials should be at shop temperature (15°C - 25°C) before mixing. Prior to use, ensure that individual components are of uniform consistency by mechanical shaking or thorough stirring. Mix as detailed in the Table below (see 'Mix Ratio & Thinning'), ensuring that the resultant blend is thoroughly stirred.
All unused blended materials should be discarded after 8 hours at normal paint shop temperatures. The pot life will significantly decrease at temperatures above 25°C.

Pot Life at 20°C

SAP2 Etch Primer: 10 – 12 h.
All other products: 8 h.

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Mix Ratio & Thinning

Coating Type	Base	Curing Agent	Mix Ratio by Volume	Thinner for spray	Viscosity BS B4 Cup (sec)	Viscosity BS B3 Cup (sec)	Pot Life at 20°C (h)
Etch Primer (Yellow)	98/SAP2	SAR2	1 : 1	SAT2	20 - 25	35 - 45	10 – 12 h
Epoxy Primer BSX33 Types A & B (Yellow)	IP9064-6362	IP9064-CAT	4 : 1	T100	20 - 25	35 - 45	8 h
Epoxy Primer AP45 to DEF STAN 80-184 (Mid-Grey)	41/AP45	J4501	2 : 1	T100	25 - 30	45 - 60	8 h
Epoxy Filler DEF STAN 80-216 (White)	90/AF98	J9802	2 : 1	T100	40 - 45	90 - 100	8 h
A98 Finishes to DEF STAN 80-161:							
Gloss	[ref]/A98/9	J9812	1 : 1	T100	19 - 22	33 - 40	8 h
Semi-gloss	[ref]/A98/6	J9813	1 : 1	T100	19 - 22	33 - 40	8 h
Eggshell	[ref]/A98/3	J9812	1 : 1	T100	19 - 22	33 - 40	8 h
Matt	[ref]/A98/1	J9814	1 : 1	T100	19 - 22	33 - 40	8 h

- If applying by roller, please consult Trimite.
- TrimaKote AP45 meets the corrosion requirements of DEF STAN 80-184.

Application Conditions

DEF STAN 80-161 (TrimaKote A98) paints should only be applied in paint shops where the temperature is between 15°C and 25°C and the relative humidity between 30% and 75%. Surfaces to be painted should be allowed to reach shop temperatures.

Application Details

- DEF STAN 80-161 (TrimaKote A98) paints are normally applied using conventional spray techniques.

Repair

The following procedure is recommended:
1. Thoroughly degrease the area involved and mask off.
2. Abrade any rough area to give a smooth sound edge.
3. Wet-flat the whole area with 800 grade paper.
4. Wipe clean and ensure the surface is completely dry.
5. Treat any bare metal with etch primer and follow with the complete system.

Thinner/Cleaner

Thinner T100 (for cleaning).

SG

1.30 ± 0.15 kg/l.

Flash Point

See Table below.

Shelf Life

Min. 1 year from date of delivery when correctly stored in unopened containers.

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Storage

The products should be stored in cool, dry, frost-free conditions, in sealed containers. Most paint materials will apply optimally when at 15° - 20°C.

Health & Safety

Refer to the product's Safety Data Sheet and safety advice on the product label before use.
Details of flammability, for both individual items and the appropriate blends ready for application, are shown in the Table below.

Coating Type	Component	Reference	Component Flashpoint	Mixed Product Flashpoint
Etch Primer	Base Component	98/SAP2	Below 23°C	Below 23°C
(TrimaEtch SAP2)	Acid Component	SAR2	Below 23°C	
	Thinner	SAT2	Below 23°C	
Epoxy Primer	Base Component	IP9064-6362	Below 23°C	Below 23°C
(BSX Types A & B)	Curing Agent	IP9064-CAT	23°C – 60°C	
	Thinner	T100	21°C – 32°C	
Epoxy Primer (Mid-Grey)	Base Component	41/AP45	23°C – 60°C	23°C – 60°C
(Def Stan 80-184 – TrimaKote AP45)	Curing Agent	J4501	23°C – 60°C	
	Thinner	T100	23°C – 60°C	
Epoxy Filler	Base Component	90/AF98	23°C – 60°C	23°C – 60°C
(TrimaKote AF98)	Curing Agent	J9802	23°C – 60°C	
	Thinner	T100	23°C – 60°C	
Epoxy Gloss Finish	Base Component	[ref]/A98/9	23°C – 60°C	23°C – 60°C
(TrimaKote A98)	Curing Agent	J9812	23°C – 60°C	
	Thinner	T100	23°C – 60°C	
Epoxy Semi-gloss Finish	Base Component	[ref]/A98/6	23°C – 60°C	23°C – 60°C
(TrimaKote A98)	Curing Agent	J9813	23°C – 60°C	
	Thinner	T100	23°C – 60°C	
Epoxy Eggshell Finish	Base Component	[ref]/A98/3	23°C – 60°C	23°C – 60°C
(TrimaKote A98)	Curing Agent	J9812	23°C – 60°C	
	Thinner	T100	23°C – 60°C	
Epoxy Matt Finish	Base Component	[ref]/A98/1	23°C – 60°C	23°C – 60°C
(TrimaKote A98)	Curing Agent	J9814	23°C – 60°C	
	Thinner	T100	23°C – 60°C	

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