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Document Issue	Date	Modification Number (where applicable) Brief Record of Change and Reason for Change
2	18.04.88	See CN 8748
3	01.03.89	See CN 8860
4	02.04.90	See CN 9019
5	01.05.91	See CN A3551
6	29.03.93	See CN A4254
7	21.11.95	See CN A5364
8	03.07.96	See CN A6766
9	24.07.96	See CN A6806
10	24.06.98	See CN A10733 Text reference to DTD 5580A replaced by specification BS2X34A
11	05.02.08	See CN A108032 update to Matt Grey FED STAN 595B Colour No. 36231. Meggitt 'R' Codes
12	25.08.09	See CNA110024.Para 1.1 a) '- - and plated - - 'Added.
13	15.12.09	See CNA110505 (re Para 3, Surface Preparation and Para 8, Repair)
14	17.06.10	RFC 111360 Addition of Bombardier Grey on page 6
15	20.10.10	RFC 111724 FED STAN 595 to latest spec issue
16	17.11.10	RFC 112014: Rewritten to suit supplier procurement information.
17	15.03.11	RFC 112280: Addition of Gloss Green Tint 14187 page 11 and Gloss Red Tint 11310 page 12
18	26.05.11	Correction to R Code, Bombardier Grey on page 10.
19	30.08.11	RFC 112539: Addition of Silver EMI Shielding coating on page 12.
20	23.10.12	RFC 113366: Update subsection 1.8.5.1 Flat Olive Drab to remove option 1. Reword option 2 to MUP113366-01 detail. Delete option 2 reference. Updated references to superceded standards.
21	03.12.12	RFC 113765: Addition of BS2X31 Specification for low temperature stoving paint.
22	02.01.13	RFC 112909: Add Paint Inspection Details. 1.4.1 Section inserted.
23	17.06.14	RFC115243 – R Codes Added
24	27.10.14	RFC115602 – Sect 1.8.1.2 update Finish Code to F1135, Sect 1.8.1.4 update Paint, Thinners, Primer and Catalyst to reflect latest standards.
25	05.02.15	RFC115708 – Added text to Section 7, Force Drying.

NOTE: All alterations must be verified by re-authorisation and approval of the complete document.

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26	29.10.15	RFC200154 – Paint code added to Sect 1.8.5.3. Sect 1.1.2 'Alocrom' replaced with 'Chromate'. Sect 1.5 BSX31 marked as withdrawn. Sect 1.8.6.1 added R7510 code
27	19.09.17	RFC201508 – PSG reference for white tint 37875 paint and hardener updated due to obsolescence. Addition of BS2X34 specifications for light grey (tint 36463) and medium grey (BAC721) paints. Incorporates changes from RFC200720
28	08.06.18	RFC202165 Added paragraph 1.8.3.7 Flat Storm Grey
29	02.09.19	RFC202842 – Removed Trimite references from Sect 1.7. 2 and replaced with 'n/a'
30	18.02.20	RFC203058 – Replace references to FED-STD-595 and replace with AMS STD 595 throughout; Added section 1.8.7 'Brown'; Added alternative 'R' codes to sect(s) 1.8.1.2, 1.8.1.3, 1.8.2.1, 1.8.2.2, 1.8.3.1, 1.8.3.2 and 1.8.3.3; Replaced Trimite/PSG reference in sect(s) 1.8.1.3 and 1.8.2.2; Added text to sect 1.8.1.1

NOTE: All alterations must be verified by re-authorisation and approval of the complete document.

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1. APPLICATION OF PAINT FOR MEGGITT PRODUCTS

1.1 Scope

1.1.1 Etch Primer

For anodised and non-plated surfaces

1.1.2 Epoxide Primer

For Chromate / Chemical Conversion Coated surfaces.

1.2 Materials

Finishes are to DEF STAN 80-161 and BS2X34 TYPE A .

- DEF STAN 80-161 superseded DTD5555A.
- BS2X34 TYPE A superseded DTD 5580A.

Note: BS2X34 TYPE A and DEF STAN 80-161 are a direct replacement without detriment to quality and design specification.

1.3 IMPORTANT Health and Safety.

Reference shall be made to the following:

- The Health and Safety At Work Act.
- The manufacturers COSHH and Data Sheets.
- Any local authority requirements.

1.4 Approved Paint Finishes.

This specification presents the colours (Tint) and finishes approved by Meggitt (UK) Ltd for use on equipment.

The colours(Tint) are generally to AMS-STD-595 (latest issue) unless otherwise stated. |

A typical paint definition would be Grey to AMS-STD-595 Tint 36118. |

For reference the definition of the Tint number 36118 is as follows:

- 1) The first digit (3) corresponds to the gloss level, see Table 1-1
- 2) The second digit (6) corresponds to the colour group, see Table 1-2.
- 3) The last three digits (118) represent that particular colour by the sequence added and its relevant placement from light to dark.

First Digit	Finish	Gloss Level	
		Minimum	Maximum
1	Gloss	80	---
2	Semi-Gloss	30	45
3	Flat (See note)	---	6

Table 1-1 Gloss Level

Note: Alternative terminology is regularly used for the gloss level 'Flat' which may also be described as 'Matt' and Lustreless.

Second Digit	Colour Groups
0	Brown
1	Red
2	Orange
3	Yellow
4	Green
5	Blue
6	Grey
7	Misc (Black, White, Gold, Silver, Violet)
8	Fluorescent

Table 1-2 Colour Groups

1.4.1 Inspection of Paint Finish

1.4.1.1 Specular Gloss Values

60° Specular gloss is calculated with standard number ASTM D523, Standard Test Method for Specular Gloss.

1.4.1.2 Colour Matching

Colour matching chips can be procured to ensure a colour match to the Federal Standard. Only colour chips marked with the current revision of the Standard should be used. Neither the fan decks nor the colour book should be used for colour matching.

Fan decks, the colour book, individual colour chips and sets of colour chips are available from:

GSA Property Management
GSA / Co / 3QSCB
490 L'Enfant Plaza East S.W.
Suite 8214
Washington DC 20407
USA

1.5 Referenced Standards.

The current issue for the referenced standards listed should be used at all times unless otherwise indicated.

BSX31(withdrawn)	Low Temperature Stoving Paint (Ref SI AW 04)
BS2X32	Specification for pre-treatment etch primer for aerospace purposes
BS2X33	Specification for two component epoxy primer for aerospace purposes
BS2X34	Specification for two component polyurethane finish for aerospace purposes
DEF STAN 80-161	Paint, Finishing, Spraying, Epoxy, Multi-Pack
AMS-STD-595	Colours used in Government Procurement
BS 381C	Specification for colours for Identification, Coding and special purposes
MIL-PRF-81352	Military Specification – Lacquer, Acrylic (For Naval Weapon Systems)
MIL-PRF-23377	Military Specification – Primer Coatings: Epoxy, Chemical and Solvent Resistant
MIL-T-81772	Military Specification – Thinner, Aircraft Coating
MIL-DTL-53039	Coating, Aliphatic Polyurethane, Single Component, Chemical Agent Resistant
ASTM D523	Standard Test Method for Specular Gloss

1.6 Paint Schemes

Note: Meggitt Avionics have previously applied internal material reference codes typically R7009 or F1068 and are used to generate structures and purchasing references.

These are included within this listing where applicable and will be shown within brackets thus (R7009).

Suggested sources of material supply and their product codes are indicated with a *.

1.7 Primers

1.7.1 Yellow Epoxy Primer (F1068), Specification BS2X33 Type A and Type B, also BSX31.

	*Trimite Reference	*PSG Reference
Primer Base (R7009)	309-AP98	PR143
Activator (R7010)	J9804	ACT143/5
Thinners (R7017)	AT98	T17

1.7.2 Etch Primer (F1131), Specification BS2X32, BSX31 (if surface untreated).

	*Trimite Reference	*PSG Reference
Primer Base (R7333)	n/a	PR30BZP
Activator (R7334)	n/a	TH34B
Thinners (R7331)	n/a	T105 (used for cleaning)

1.8 Paint Finishes

1.8.1 Black

1.8.1.1 Flat Black to AMS-STD-595, Tint 37038 (F1098), Specification BS2X34 Type A
Primary finish for MAV instruments unless otherwise stated on the drawing

	*Trimite Reference	*PSG Reference
Paint (R7011)	B401/B74/1	FE85M/801
Hardener (R7339)	J7701	ACT85/5
Thinners (R7368)	BT93	T115

1.8.1.2 Flat Black to AMS-STD-595, Tint 37038 (F1135), Specification MIL-PRF-22750.
*** ITAR ***

Paint (R7493)	M22750-37038
Primer (R7492)	M23377 Type 1 Class C2
Thinners (R7417)	M81772 Type 2

Alternative to paint scheme above see 1.8.1.2.1;

1.8.1.2.1 Black to Vepolux 038, Specification MIL-PRF-22750, Type 2, Class H, Grade B

Paint (R7519)	Vepolux 038
Primer (R7520)	Epolux 36073J
Hardener (R7522)	Vepolux 038 - Hard
Hardener (R7521)	Epolux 36073J - Hard

1.8.1.3 Gloss Black to AMS-STD-595: Tint 17038 (F1099), Specification BS2X34 Type A.

	*Trimite Reference	*PSG Reference
Paint (R7013)	B401/B74/9	FE93/801
Hardener (R7367)(R7499)	J7401	ACT93
Thinners (R7368)	BT93	T115

1.8.1.4 Flat Black to AMS-STD-595, Tint 37038 (F1135), Specification MIL-DTL-53039
*** ITAR ***

Paint (R7496)	to MIL-DTL-53039 Type 9 37038
Thinners (R7417)	to MIL-T-81772 Type 1
Primer (R7492)	to MIL-PRF-23377 Type 1 Class C
Catalyst (R7501)	to MIL-PRF-23377 Type 1 Class C

1.8.1.5 Egg Shell Black (F1026), Specification DEF STAN 80/161.

	*Trimite Reference	*PSG Reference
Paint (R7305)	B401/A98/3	EC75/801
Egg shell activator (R7306)	J9812	ACT67
Matt activator 68 (R7307)	J9814	ACT68
Thinners T17 (R7308)	AT98	T17

1.8.2 White

1.8.2.1 Flat White to AMS-STD-595: Tint 37875 (F1097), Specification BS2X34 Type A.

	*Trimite Reference	*PSG Reference
Paint (R7069)	W301/B74/1	CA8311/F37875
Hardener (R7253) (R7339)	J7701	CA8310B-1
Thinners (R7368)	BT93	T115

1.8.2.2 Gloss White to AMS-STD-595 Tint 17875 (F1100), Specification BS2X34 Type A.

	*Trimite Reference	*PSG Reference
Paint (R7015)	W301/B74/9	FE93/802
Hardener (R7367) (R7339)	J7401	ACT93
Thinners (R7368)	BT93	T115

1.8.3 Grey

1.8.3.1 Flat Grey to AMS-STD-595: Tint 36118 (F1124), Specification BS2X34 Type A

	*Trimite Reference	*PSG Reference
Paint (R7295)	R34223/B74/1	FE85M/C1193
Hardener (R7253) (R7339)	J7701	ACT85/5
Thinners (R7368)	BT93	T115

1.8.3.2 Flat Grey to AMS-STD-595 Tint 36231 (F1032), Specification BS2X34 Type A

Option 1

	*PSG Reference
Paint (R7068)	CA8311/F36231
Hardener (R7450)	CA8310B
Thinners (R7340)	None Required

Option 2

	*Trimite Reference
Paint (R7068)	R60526/B74/1
Hardener (R7253) (R7339)	J7701
Thinners (R7368)	BT93

1.8.3.3 Bombardier Grey, Specification BS2X34 Type A

	*Trimite Reference
Paint (R7471)	R48995/B74/1
Hardener (R7253) (R7339)	J7701
Thinners (R7368)	BT93

1.8.3.4 BS X31 Low Temperature Stoving Paint

***Trimite Reference**

Matt White (R7124)	W301/560/X/1
Semi Gloss (R7006)	DS31003
Matt Black (R7154)	D31004
Thinners (R7054)	ST60

1.8.3.5 Flat Medium Grey to BAC721, Specification BS2X34 Type A

	PSG Reference
Paint (R7525)	CA8311/B721
Hardener (R7527)	CA8310B-1
Thinners (R7368)	T115

1.8.3.6 Flat Light Grey to AMS-STD-595: Tint 36463, Specification BS2X34 Type A

	PSG Reference
Paint (R7526)	CA8311/F36463
Hardener (R7527)	CA8310B-1
Thinners (R7368)	T115

1.8.3.7 Flat Storm Grey

Flat Storm Grey to BS4800.Specification BS2X34 Type A

Trimite Reference

Paint (R7528)	00A13/B74/1
Hardener (R7253)	J7701
Thinners (R7368)	BT93

1.8.4 Orange

Semi-Gloss Orange to BS 381C, Ref 592

Specification, Trimite P7000/6

Paint, Epoxy powder coating, Gloss 55% to 65%

1.8.5 Green

1.8.5.1 Flat Drab Olive Green to AMS-STD-595 Tint 34088, Specification BS2X34 Type A

Yellow Epoxy Primer See Primers Listing

Trimite Reference

Paint (R7490)	B74
Hardener (R7253) (R7339)	J7701
Thinners (R7368)	BT93

1.8.5.2 Flat Aircraft Green to AMS-STD-595, Tint 34031 *** ITAR ***

Paint (R7416)	to	MIL-DTL-53039 Type 9 34031
Thinners (R7417)	to	MIL-T-81772 Type 1
Primer (R7492)	to	MIL-PRF-23377 Type 1 Class C2
Catalyst (R7501)	to	MIL-PRF-23377 Type 1 Class C2

Note: Refer to al40 for alternative primer

Primer (R7520)	to	MIL-PRF-23377 Type 1 Class N
Catalyst (R7521)	to	MIL-PRF-23377 Type 1 Class N

1.8.5.3 Gloss Green to AMS-STD-595, Tint 14187, Specification BS2X34 Type A.

Trimite Reference

Paint (F1138)	R66600/B74/9
Hardener (R7499) (R7367)	J7401
Thinners (R7368)	BT93

1.8.6 Red

1.8.6.1 Gloss Red to AMS-STD-595, Tint 11310, Specification BS2X34 Type A.

Trimite Reference

Paint (R7510)	R (See Note)/B74/9
Hardener (R7499) (R7367)	J7401
Thinners (R7368)	BT93

Note: Trimite to provide paint reference upon receipt of first order.

1.8.7 Brown

1.8.7.1 Gloss Middle Brown to BS.381c Tint 411 Specification DEF STAN 80-161

***Trimite Reference**

***PSG Reference**

Paint (R7387)

411/A98/9

Hardener (R7255)

J9812

Thinners (R7308)

AT98

T17

1.9 Silver EMI Shielding Coat (R7379)

Manufacturer: Acheson Colloiden B.V
Postbox 1
6729 ZG Scheemda
Netherlands

Coating: Electrodag 1415M

Diluent: MEK / Diacetone alcohol.

Force Drying: Silver EMI shielding coating to be force dried for 30 minutes between 70°C to 80°C.

Methods of Use: Surface preparation; Mixing and dilution; Application; Drying and cleaning:
In accordance with manufacturers data sheet.

Above material to be sourced from an approved supplier.

2. STORAGE

The storage time and conditions for Paint, Activator and Thinners shall be in accordance with the manufacturers data sheet.

3. HANDLING OF CLEANED PARTS

During the treatment and painting process, parts must be protected from contamination by grease or oil. It is recommended that operators wear clean, white cotton or latex gloves whilst handling parts for priming or painting.

If a part becomes contaminated with grease, oil or fingerprints, it must be solvent cleaned before treatment. This should be performed in accordance with the manufacturers data sheet.

4. SURFACE PREPARATION

The surfaces to which the specified paint is to be applied shall be treated as defined on the appropriate drawing if applicable or in accordance with the manufacturers data sheet.

Painting shall be carried out as soon after surface pre-treatment as possible.

NB. For best results paint manufacturers advise that priming occurs within 24 hours of surface treatment. Where possible, efforts should be made to meet those recommendations.

5. MIXING AND THINNING

Mixing and thinning of paint shall be in accordance with the manufacturers data sheet.

Storage time and conditions for the pot life of unused blended material shall be in accordance with the manufacturers data sheet.

6. APPLICATION

The application method and conditions shall be in accordance with the manufacturers data sheet.

The coating weights, dry film thickness, coverage figures and drying times shall be in accordance with the manufacturer's data sheet. Typical application details are summarised in Table 6-1.

Coating Type	Dry Film Weight Grams/m ²	Dry Film Thickness Microns	Coverage m ² /Litre	Air Drying Before Overcoating
Etch Primer	14-21	4-8	7-10	2 hours min
Epoxy Primer	25-35	13-18	11-15	6 hours min 72 hours max
Epoxy Filler	62-78	31-40	7-10	4 hours between coats 16 hours before flattening
Polyurethane Finishes	32-48			6 hours min between coats

Table 6-1 Typical Application Detail

6.1 Finish

Where more than one coat of finish is to be applied, preparation and treatment shall be in accordance with the manufacturers data sheet. Care should be exercised to avoid removal of previous coats.

Where bare metal areas are exposed, it will be necessary to repair these by treatment with a conversion coating or etch primer followed by priming with Two Pack Epoxy Primer. The surface must be perfectly clean and free from flattening sludge, moisture or grease before applying further coats.

7. FORCE DRYING

When it is required to accelerate the drying/curing process, this shall be carried out in accordance with the manufacturers data sheet.

Where the manufacturer's data sheet does not specify a duration/temperature these parts may be force dried/cured at a temperature of 70°C for 2hrs.

8. CLEANING

Preparation and cleaning shall be in accordance with the manufacturers data sheet.

9. REPAIR

All damage to the paintwork will be repaired with the minimum amount of work.

Paint as specified on the relevant drawing and in accordance with PS121.

NOTE: ONLY ONE PAINT MANUFACTURER'S PRODUCT TO BE USED DURING WHOLE PAINTING PROCESS