

Finish: Hard dyed black anodize with color and shade consistency. Finish Designator F29

1.0 General:

1.1 Applicable documents: MIL -A-8625F- Military specification- Anodic Coating for Aluminum and Aluminum Alloy

1.2 This standard specification calls for parts to be sealed in order to assure color consistency and fastness. Sealing, however, reduces the finish hardness. Therefore, if maximum hardness is required Clear Hard Anodize per spec. PA22783 is recommended:

2.0 Finish supplier

2.1 Apply following finish: Hard dyed black sulfuric acid hard anodize with color and shade consistency per Mil spec MIL-A-8625F, Type III, Class 2, .002 thick, which includes penetration and buildup (or other thickness as specified.) Sealing to be done in a hot aqueous solution containing nickel or cobalt acetate or equivalent. The use of water sealing not allowed. Parts to remain in coloring bath for maximum time allowance per product profile for the dye and material being used

2.2 Verify that shown dimensions are after finish, except as noted:

2.3 Mask any specified holes on drawings if required.

2.4 If rack mounts are not shown on drawing place them on far side of part.

2.5 Anodize parts before pressing or otherwise installing pins and other fasteners. Mask holes as required and specified in MIL spec.


2.6 Exercise controls to assure the uniformity of color and shade of all items supplied in it and in different lots. Variation in uniformity of color should not be any greater than that in the control parts

2.7 Package all parts per applicable packaging specification.

2.8 Visually inspects all work prior to finishing to determine its suitability for meeting the finishing requirements of this specification

2.9 Upon requests prepare new control parts (sample chips) for Brooks approval.

3.0 Silk screen supplier

G	ECO 70929	10/11/13	DP	DRN. L.Sandmann		TITLE Finish Specification F29-Plating, Hard dyed black anodize
F	REV PER ECO 35947	1/24/06	CPI	10/13/93		
E	ECO 29312	9/13/05	DRP	D.E. B.Megee	BM	DWG NO PA22945
D	Include ES25300 spec and add color testing info. ECO-26215	5/6/02	MT	10/13/93		
C	ECO10373	4/30/96	CDI	P.E. M.Tamir	Next BM	SH 1 OF 2
B	N/A	10/13/93		
A	INITIAL RELEASE	10/13/93	MT	MFG. E. E.Wong		
REV	DESCRIPTION	DATE	BY	10/22/93		

- 3.1 Maintain color match specifications noted per drawing.
- 3.2 Assure that characteristics of screened surfaces meet criteria set forth on drawing

4.0 Fabrication supplier

- 4.1 Normally the fabricator is also responsible for the finish, silkscreen operations and their quality. If parts are purchased in an unfinished state, the part fabricator is responsible for providing parts in good, ready to finish condition, free from deep scratches, brake marks, tool marks, with flush inserts, and without defects that necessitate further preparation in order to meet the finish requirements.

5.0 Testing

5.1 This Specification establishes the procedure for Bleach Testing on Class 2 Anodized Finishes.

5.2 This Procedure will apply as an attachment to Both F3 and F29 finishing specifications, and is required by the Plating Vendors and **Fabrication Suppliers** to perform on Black Anodized products.

5.3 Test Materials

5.3.1 The material used for this test will be Bleach containing Sodium Hypochlorite (commercially sold) and will have a shelf life requirement of six (6) months.

5.3.2 Glass Eyedropper

5.3.3 Clean White Rag

6.0 Test Procedure

6.1 This test should be performed in an inconspicuous location, (Bottom unseen side, mating surfaces or under label location).

6.2 With the Glass Eye-dropper place one (1) drop of Bleach approximately one quarter inch (1/4) in diameter and allow to sit for 30 seconds to 1 minute.

6.3 Wipe with a clean white rag,

6.4 If the black color bleeds out in the drop location, this will be cause for rejecting.

6.5 If the drop area does not bleed out this will be considered acceptable, wipe clean with a standard cleaning solution.

6.6 This will show that a sufficient sealing has been performed

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SH 2 OF 2	REV