SAE International SAE Standards Works

Home » AMS B Finishes Processes and Fluids Committee »

B13AA - Nanocrystalline Cobalt-Phosphorus Electroplating

Overview	Summary
Type: 28 Day Issued Start Date: May 16, 2014 Due: Jun 12, 2014 Sponsor: James L. Green View Final Draft **To:** AMS B Finishes Processes and Fluids Committee	Please respond to the 28 Day ballot below. Respondents to this ballot are acting as individuals and are not representing any group or organization. A statement explaining the basis for disapproval must accompany all negative ballots. Ballots close at 12:00 midnight (9:00pm Pacific) on due date.

Ballot Results

Approve	Disapprove	Waive	Participation
12	1	5	18/32
37.5%	3.1%	15.6%	56.2%

Ballot Responses View Summary of Replies

Members List View Voting Members

Kevin Rankin	AMSB	06/12/2014 20:53 PM	APPROVE
Allison Warren	AMSB	06/12/2014 17:40 PM	

Informational Comment on Section/Paragraph: Draft

Add Reply

WAIVE

Shlomo Ramati	AMSB	06/11/2014 07:58 AM	WAIVE
Colister Dickson	AMSB	06/11/2014 06:47 AM	APPROVE
Jacque Bader	AMSB	06/09/2014 19:32 PM	APPROVE
Roger Sines	AMSB	06/08/2014 22:31 PM	APPROVE
Brian Sova	AMSB	06/06/2014 16:33 PM	WAIVE
Carl Sauer	AMSB	06/05/2014 13:20 PM	

Informational Comment on Section/Paragraph: 0

Add Reply

waive

Stan Biernat	AMSB	06/05/2014 09:52 AM	WAIVE

Ray Kremer	AMSB	06/05/2014 09:43 AM	APPROVE
Craig Willan	AMSB	06/05/2014 07:12 AM	APPROVE
Daniel Backus	AMSB	06/05/2014 06:30 AM	APPROVE

Technical Comment on Section/Paragraph: 3.1.2

Add Reply

This section appears to be in direct conflict with the Ordering Information (Notice 1 & 2) at the beginning of the specification and with 8.2. These conditions are not the responsibility of the processor. Recommend removal of this section.

Technical Comment on Section/Paragraph: 3.3.1.1

Add Reply

All steel alloys need to be hydrogen embrittlement relieved regardless of the hardness of the parts?

Informational Comment on Section/Paragraph: 3.4.1.1

Add Reply

"Surface" should be "Surfaces"

Technical Comment on Section/Paragraph: 3.4.1.3

Add Reply

Recommend removing “plus any grinding….is 0.002 inch” as the thickness specified is already a minimum.

Informational Comment on Section/Paragraph: Ordering Information

Add Reply

1) Plating Thickness Desired reference 3.4.1. 3.4.1 explains the types of measuring methods allowed. The referenced paragraph should be 3.4.1.3

Charles Himmelblau	AMSB	05/31/2014 12:47 PM	

Informational Comment on Section/Paragraph: 1.2

Add Reply

The last two sentences seem too much llike advertising. The breadth of applicable substrates is implied in 3.2. The electroforming mandrel use is covered by "not limited to such applications".

Informational Comment on Section/Paragraph: 8.1

Add Reply

This somewhat indistinct description of the composition-grain size space makes me wonder if the developer of this process has verified that the properties will be achieved reproducibly throughout that regime (particularly at the four

extremities). There being no actual Requirements on these parameters, and since users are likely depending on the coating for corrosion or (through hardness) wear resistance which are only tested Periodically, how can they depend on the reliability of the outcome? I accept that frequent grain size testing will be impractical (and only a little less so for plating composition), perhaps we need more frequent corrosion resistance testing and the hardness test should be an Acceptance one.

Ken Sabo	AMSB	05/27/2014 21:14 PM	APPROVE
Rebecca Wyss	AMSB	05/27/2014 16:19 PM	WAIVE
Gregory Haataja	AMSB	05/27/2014 08:51 AM	APPROVE

Informational Comment on Section/Paragraph: 4.6.1

Add Reply

In first sentence change the word "purchase" to " the purchaser". In second sentence put "the" in front of "purchaser".

Jason Scheuring	AMSB	05/23/2014 14:25 PM	

Informational Comment on Section/Paragraph: 0

Add Reply

waive

Robert Steffen	AMSB	05/23/2014 06:52 AM	APPROVE
Cheryl Lewis	AMSB	05/22/2014 08:19 AM	

Informational Comment on Section/Paragraph: all

Add Reply

waived

Charles Beargie	AMSB	05/20/2014 12:45 PM	

Informational Comment on Section/Paragraph: All

Add Reply

Waive

Bohdan Hasiuk	AMSB	05/20/2014 10:26 AM	APPROVE
Roger Eybel	AMSB	05/20/2014 10:07 AM	APPROVE
James Oshea	AMSB	05/20/2014 07:56 AM	DISAPPROVE

Informational Comment on Section/Paragraph: 3.1.1.1.3

Add Reply

3.1.1.1.3 "Temperature above 375F..." confilcts with para 3.1.1.1.2 which has a stress relief range of 350-400F. Possibly change to "temperature above 400F..."

Technical Comment on Section/Paragraph: 3.2.1

Add Reply

I am unfamiliar with this alloy plating, would there be some ratio or percent of cobalt to phosphorus in either the plating solution or the finished plate? This would also include some periodic testing for that percent or ratio.

Technical Comment on Section/Paragraph: 3.3.1.2

Add Reply

Need to reword this paragraph to insure H2 relief baking is controlled if performing on carburized steel (275 +/-25F for 23 Hr minimum) or possibily add wording to 3.3.1.1 :

3.3.1.2 At the option of the processor, hydrogen embrittlement relief baking may be performed on other families of alloys. If performed hydrogen embrittlement relief baking operations shall be documented.

Informational Comment on Section/Paragraph: 3.3.1.3

Add Reply

I am a bit confused how this paragraph fits in with the plating specification as the relief for the plating was covered in the above paragraphs.

Informational Comment on Section/Paragraph: 4.2.1

Add Reply

4.2.1 Acceptance Tests - Would this plating specification also be a canadate for periodic adhesion testing (daily) when processed as comnpared to the other plating specifications?

Informational Comment on Section/Paragraph: 4.3.2

Add Reply

4.3.2 Periodic tests - Listing Adhesion sampling as a periodic test yet the above paragraph shows as an acceptance test and sampled per table 1.

Hitoshi Takeda AMSB 05/19/2014 23:03 PM

Technical Comment on Section/Paragraph: all

Add Reply

Waive

Alex Pohoata AMSB 05/19/2014 13:53 PM

Informational Comment on Section/Paragraph: 0.0

Add Reply

Waive

Michael Niedzinski AMSB 05/16/2014 16:44 PM WAIVE

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