

# AMS Grinding Specification for HVOF Coatings on High Strength Steel



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# HVOF as a Hard Chrome Replacement



## AMEC Grinding Specification

**AMEC Meeting No. 174 @ Honeywell Plant - Phoenix, AZ  
23 - 24 January 2003**

**Specify table speeds for surface grinding (50-75 FPM)**

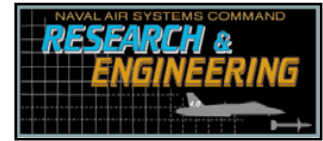
**Specify level of penetrant sensitivity consistent with  
AMS 2440 for Cr plate (Level 2 or higher)**

**Incorporate comments from last 28-day ballot and send  
HVOF Grinding Spec to Committee E for action**

**Send Grinding Spec concurrently to Committee B,  
AMEC, and the special HCAT Distribution List for info**



# HVOF as a Hard Chrome Replacement



## AMEC Grinding Specification

**AMEC Meeting No. 175 @ Asilomar Conference Center - Pacific Grove, CA 5-7 March 2003 AMEC has a new chairman. Mr. Al Patterson of Lockheed-Martin GA elected chairman of Aerospace Metals Engineering Committee of SAE's Aerospace Materials Division.**

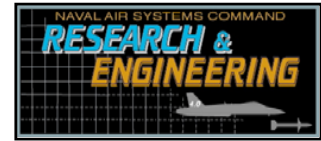
**Unable to attend AMEC Mtg. No. 175 due to lack of funding**

**AMEC Meeting No. 176 @ Alcoa - Davenport, IA 12-13 June 03 SAE has assigned draft specification number to AMS grinding spec. It is AMEC-03AD. MAJOR ACCOMPLISHMENT.**

**Comments from last 28-day ballot incorporated and Grinding Spec sent to Committee E for action as directed by AMEC.**



# HVOF as a Hard Chrome Replacement



## AMEC Grinding Specification

**AMEC Meeting No. 177 @ Astro Aluminum Treating - Southgate, CA 12-13 August 2003**

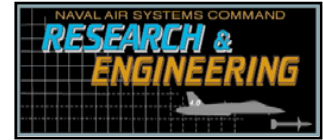
**Grinding Spec is MIA - Missing In Action  
No Report - No Status on 28-day ballot - No Status on Grinding Spec.**

**AMEC Chairman Mr. Al Patterson to address issue of AMEC-03AD (AMS Grinding Spec.) at Commodity Committee Mtg. In Montreal in September 2003**

**AMEC Meeting No. 178 scheduled for 5-6 Nov 2003 @ Aremac Heat Treating - City of Industry, CA**



# HVOF as a Hard Chrome Replacement



## AMEC Grinding Specification

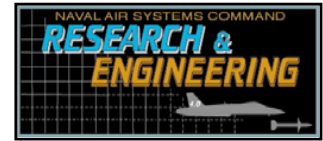
**AMEC Meeting No. 178 held 5-6 Nov 2003 @ Aremac Heat Treating - City of Industry, CA - Grinding Spec still MIA.**

**AMEC Meeting No. 179 at Asilomar, Pacific Grove, CA 8-10 February 2004 - Grinding Spec AMEC-03AD has been balloted through Committee E as directed in June '03 at AMEC 176 and needs a few additional approval votes to move to Aerospace Council**

**Need to solicit additional approval votes at SAE AMS Metals Division Mtg. March 29 – April 2, 2004 in New Orleans**



# HVOF as a Hard Chrome Replacement



## AMEC Grinding Specification

**SAE AMS Metals Division Mtg. March 29 – April 2, 2004 in  
New Orleans - Committee E Meeting March 31, 2004**

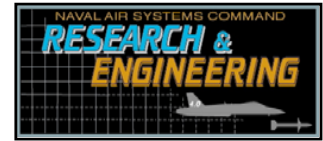
**Two technical issues resolved:**

- 1 – Surface finish shall be 8 Ra or better, UOS**
- 2 – ANSI B7.1 added for Care & Protection of Grinding  
\_\_\_\_ Wheels**

**Enough additional approval votes garnered to gain  
approval of Grinding Spec by Committee E**



# HVOF as a Hard Chrome Replacement



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## AMS Grinding Specification

**Grinding Spec submitted to Committee E for 14-day Re-affirmation ballot on May 14, 2004**

**14-day ballot closed May 28, 2004 with no negative replies**

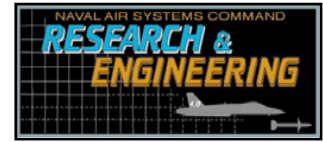
**HVOF Grinding Spec has been officially approved by Committee E**

**HVOF Grinding Spec now officially assigned permanent AMS number of **AMS 2449****

**AMS 2449 will have minor editorial “clean-up” and then be forwarded to Aerospace Council for final vote and then **to publication****



# HVOF as a Hard Chrome Replacement



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## AMS 2448 - HVOF Coating Application Specification

**Editorial corrections made – Version of Spec that was approved by Committee B is going back to Aerospace Council for final approval and then to publication**

**AMS 7881 – Tungsten Carbide-Cobalt Powder Specification published by SAE in April 2003**

**AMS 7882 – Tungsten Carbide-Cobalt Chrome Powder Specification published by SAE in April 2003**