

# SMI, Inc.

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Attn: Marc Skiersch  
Reliance Specialty Products, Inc.  
855 Morse Avenue  
Elk Grove Village, IL 60007

Date: 15-Aug-2019

SMI/REF: 1903-588R  
Revised for product name change

Product: **AeroTron -AV** (received 20-May-2019)

Dilution: As received

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**Pratt & Whitney  
PWA 36604 Revision E  
Stress Corrosion**

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**3.2.3.1 Stress Corrosion:** Test specimens shall show no evidence of stress corrosion cracking when tested in accordance with Pratt & Whitney Materials Control Laboratory Manual Section E - 205 or ASTM F - 945, Method A using AMS 4911 and AMS 4916

***Tested in accordance with ASTM F 945:***

General Procedure:

- Method A [*Heat at 900 ± 20°F (480 ± 10°C) for 8 ± 0.2 hours*)]
- **Determination of Test Results**
- Detection of cracks on either the tension or compression surfaces of any of the untreated (control) specimens shall be cause to repeat the entire stress corrosion test using acceptable titanium alloy sheet material.
- Failure to detect cracks on either the tension or compression surfaces of all of the sodium chloride solution-treated specimens shall be cause to repeat the entire stress corrosion test using titanium alloy sheet having a demonstrated susceptibility to stress corrosion cracking.
- Examine tension and compression surfaces of candidate solution treated specimens for cracks and make one of the following dispositions:
- Failure to detect cracks on any specimen shall constitute an acceptance test for the candidate cleaning material.
- Detection of cracks on all specimens shall be cause for rejection of the candidate cleaning material.
- If some of the specimens do not exhibit cracks, the entire stress corrosion test may be repeated at the option of the testing facility.

Client: Reliance Specialty Products, Inc.  
 Product: AeroTron -AV  
 Dilution: As received  
 PWA 36604 Rev E: Stress Corrosion (ASTM F 945)

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Alloy		OBSERVATION	RESULT
AMS 4911 Blank Control	# 1	No evidence of cracking.	AMS 4911 Titanium sheet meets acceptability and sensitivity criteria
	# 2	No evidence of cracking.	
	# 3	No evidence of cracking.	
AMS 4911 3% Salt Control	# 1	Cracking evident.	
	# 2	Cracking evident.	
	# 3	Cracking evident.	
AMS 4911 Candidate Solution	# 1	No evidence of cracking.	Conforms
	# 2	No evidence of cracking.	Conforms
	# 3	No evidence of cracking.	Conforms
AMS 4916 Blank Control	# 1	No evidence of cracking.	AMS 4916 Titanium sheet meets acceptability and sensitivity criteria
	# 2	No evidence of cracking.	
	# 3	No evidence of cracking.	
AMS 4916 100 ppm Salt Control	# 1	Cracking evident.	
	# 2	Cracking evident.	
	# 3	Cracking evident.	
AMS 4916 Candidate Solution	# 1	No evidence of cracking.	Conforms
	# 2	No evidence of cracking.	Conforms
	# 3	No evidence of cracking.	Conforms

Respectfully submitted,



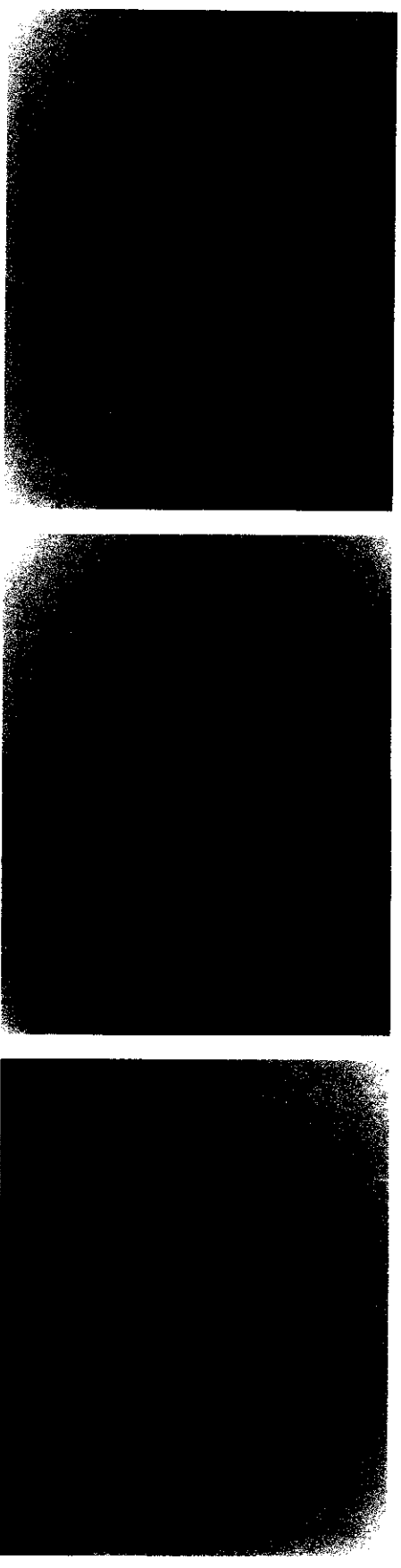
Patricia D. Viani, SMI Inc.

# SMI, Inc.

## SCIENTIFIC MATERIAL INTERNATIONAL

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SMI REF #: 1903-588<sup>R</sup>  
CLIENT: RELIANCE SPECIALTY PRODUCTS INC  
PRODUCT: AEROTRON-AV  
DILUTION: AS RECEIVED  
ALLOY: AMS 4911



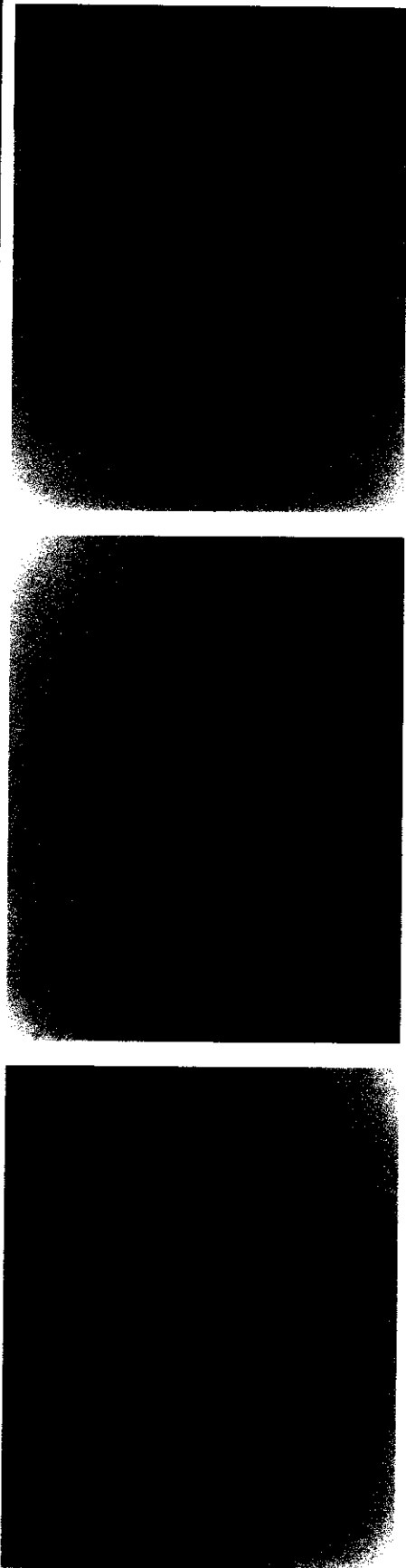
REPLICATE #1		REPLICATE #2		REPLICATE #3	
OBSERVATIONS	NO CRACKING	OBSERVATIONS	NO CRACKING	OBSERVATIONS	NO CRACKING

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SMI REF #: 1903-588<sub>R</sub>  
CLIENT: RELIANCE SPECIALTY PRODUCTS INC  
PRODUCT: AEROTRON-AV  
DILUTION: AS RECEIVED  
ALLOY: AMS 4916



REPLICATE #1		REPLICATE #2		REPLICATE #3	
OBSERVATIONS	NO CRACKING	OBSERVATIONS	NO CRACKING	OBSERVATIONS	NO CRACKING