



AMASTEEL DIVISION

915 TABOR STREET
ADRIAN, MI 49221

PRODUCT CERTIFICATION REPORT

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SEPTEMBER 12, 2025 Date	A25-329 Certification No.	SO00125009396 Ervin Order No.
UKERA LAB INC. Customer	SPN009 P.O. No.	9-12-25 <i>AK</i> Shipping Date
13838 BENTLEY PLACE, UNIT A Address	109583 Customer No.	S-110 MIL/ASH 110 Product shipped
CERRITOS City	CA State	90703 Postal code
S0110-V-DW-1192 Product Code	5.000 TONS Quantity Shipped	USA Country
		AK250911 Manufacturing Date (lot#)



Specification(s) Certified to (including revision date or code): AMS2431/2G, AMS2431E, AMS-S-13165A, MIL-S-13165C, J827 OCT 19

CERTIFICATION TEST RESULTS:

SIEVE ANALYSIS			Cumulative % Retained	
MM	Inches	Specification	Sample 1	Sample 2
.500	.0197	0% MAX	0	0
.425	.0165	2% MAX	0	0
.355	.0139	50% MAX	12	14
.300	.0117	90% MIN	98	99
.180	.0070	98% MIN	100	100

HARDNESS		
RC - Converted from	500	Grams
	KNOOP	Hardness Number
Specification	55-62	HRC - 90% min
# of readings	20	
Average	59	HRC
Range	56-62	HRC

CHEMICAL ANALYSIS				MISCELLANEOUS TESTS		
Element	Specification	Percent %		Characteristic	Specification	Results
		Sample 1	Sample 2			
Carbon	0.80-1.20	.97	.98	Marginal Particles AMS 2431	14 max per .0625 SQ. IN.	6
Manganese				Unacceptable Particles AMS 2431	5 max per .0625 SQ. IN.	0
230 and up	0.60-1.20			Deformed Particles MIL-S-13165	32 max per 1/4"x1/4" IN SQ	6
170-190	0.50-1.20					
70-130	0.35-1.20	.48	.48	Internal Defects	15% Max	Less Than 15%
Silicon AMS2431	0.40-1.50	.47	.47	Cracks	10% Max	Less Than 10%
Silicon J827	0.40 Min.	.47	.47	Hollows	10% Max	Less Than 10%
Sulfur	0.05 Max	.020	.019	Shrinkage	10% Max	Less Than 10%
Phosphorous	0.05 Max	.023	.022	Density	7.0 gr/ml Min.	7.69
				Microstructure: Uniform tempered martensite with fine, well-distributed carbides.		

COMMENTS: Reference # 250826

Signature:

Jared B. Duckett
 Jared B. Duckett
 Revised 5/19/20

Title:

LABORATORY SUPERVISOR

C43-1A1

AMASTEEL DIVISION

915 Tabor Street
Adrian, MI 49221



1. This report is confidential and proprietary information for the customer requiring this report.
2. This report will not be copied and/or distributed outside of Ervin without written consent of the customer.
3. The following applicable test procedures were used to generate the data included in this report:

SAE International:

SAE J442 - 2022-05	Test Strip Holder and Gage for Shot Peening
SAE J443 - 2017-08	Procedures for Using Standard Shot Peening Test Strip
SAE J444 - 2023-06	Cast Shot and Grit Size Specifications for Peening and Cleaning
SAE J445 - 2022-05	Metallic Shot and Grit Mechanical Testing
SAE J827 - 2019-10	Cast Steel shot
SAE J1993 - 2019-02	Cast Steel Grit
SAE AMS 2431E	Peening Media General Requirements
SAE AMS 2431/1G	Cast Steel Shot, Regular Hardness (45-52 HRC)
SAE AMS 2431/2G	Cast Steel Shot, High Hardness (55-62 HRC)

ASTM:

B 215 - 20	Standard Practices for Sampling Finished lots of Metal Powders
D 512-23	Standard Test Method for Chloride Ion in Water
D 4940-15(2020)	Standard Test Method for Conductimetric Ionic Contamination of Blasting Abrasives
* E 11 - 24	Specification for Wire-Cloth Sieves for Testing Purposes
E 140 - 12B(2019)e1	Hardness Conversion Tables for Metals (Relationship Between Brinell Hardness, Vickers Hardness, Rockwell Hardness, Rockwell Superficial Hardness and Knoop Hardness)
E 305 - 21	Standard practice for Establishing and Controlling Spectrochemical Analytical Curves
E 384 - 22	Test methods for Microhardness of Materials
E 406 - 19	Standard Practice for Using Controlled Atmospheres in Spectrochemical Analysis
E 415 - 21	Standard Test Method for Optical Emission Vacuum Spectrometric Analysis of Carbon and Low Alloy steel
E 1010 - 16	Standard Practice for Preparation of Disk Specimens of Steel and Iron for Spectrochemical Analysis by Remelting
E 1257 - 16	Standard Guide for Evaluating Materials Used for Surface Preparation in Spectrochemical Analysis

Ervin Industries, Inc., Quality Instructions:

Q. I. No. - AL & BL-5	Durability Test
Q. I. No. - AL & BL-43	Transmitted Energy Test