



SCOPE OF ACCREDITATION TO ISO 17034:2016

BRAMMER STANDARD COMPANY, INC.  
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REFERENCE MATERIAL PRODUCER<sup>1</sup>

Valid To: April 30, 2019

Certificate Number: 0656.02

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this Reference Material Producer for the production of certified reference materials of the following categories:

Category and sub-category of Certified Reference Material	Concentration Ranges and Associated Uncertainty <sup>1</sup>	Measurement Technique
<p>CATEGORY A: CHEMICAL COMPOSITION</p> <p><u>Ferrous metals:</u>                      (Solids, Chips, &amp; Pins)                      Steels                          Carbon steels                          Low alloy steels                          High alloy steels                          Cast steels                          Specialty steels</p> <p>Irons                          White irons                          Cast irons                          Ductile irons                          Gray iron                          Nodular iron</p> <p><u>Nonferrous metals:</u>                      (Solids &amp; Chips)                          Aluminum alloys                          Copper base alloys                          Cobalt base alloys                          Nickel base alloys                          Titanium base alloys                          Zinc base alloys</p>	<p>Elemental Composition:</p> <p>Al to Zr                      (0.000001 to 100.00000) %                      Uncertainty: (0.01 to 1) %</p> <p>Elemental Composition:</p> <p>Al to Zr                      (0.000001 to 100.00000) %                      Uncertainty: (0.01 to 1) %</p>	<p>Measurement by a network of qualified laboratories using a variety of methods of demonstrable accuracy.</p>

Category and sub-category of Certified Reference Material	Concentration Ranges and Associated Uncertainty <sup>1</sup>	Measurement Technique
<p>CATEGORY A: CHEMICAL COMPOSITION (cont.)</p> <p><u>Special alloys:</u> (Solids, Chips, &amp; Powders)</p>	<p>Elemental Composition:</p> <p>Al to Zr (0.000001 to 100.00000) % Uncertainty: (0.01 to 1) %</p>	<p>Measurement by a network of qualified laboratories using a variety of methods of demonstrable accuracy</p>
<p>CATEGORY A: INORGANIC CERTIFIED REFERENCE MATERIALS</p> <p><u>Ores and minerals:</u> Iron ore Iron ore sinter</p> <p><u>Metal producing materials &amp; byproducts:</u> Ferroalloys Silico-calcium Slag</p>	<p>Elemental Composition:</p> <p>Al to Zr (0.000001 to 100.00000) % Uncertainty: (0.01 to 1) %</p> <p>Elemental Composition:</p> <p>Al to Zr (0.000001 to 100.00000) % Uncertainty: (0.01 to 1) %</p>	<p>Measurement by a network of qualified laboratories using a variety of methods of demonstrable accuracy</p>
<p>CATEGORY D: ENGINEERING PROPERTIES</p> <p><u>Tensile Strength:</u> (Metals both Ferrous &amp; Nonferrous)</p> <p><u>Hardness:</u> (Metals both Ferrous &amp; Nonferrous)</p>	<p>Yield Strength 0-scale max Ultimate Strength 0-scale max Reduction in Area 0-scale max Elongation 0-scale max Uncertainty: (0.01 to 1) %</p> <p>Rockwell 0-scale max Brinell 0-scale max Vickers 0-scale max Uncertainty: (0.01 to 1) %</p>	<p>Measurement by a network of qualified laboratories using a variety of methods of demonstrable accuracy</p>







## *Accredited Reference Material Producer*

A2LA has accredited

**BRAMMER STANDARD COMPANY, INC.**

*Houston, TX*

This accreditation covers the specific materials listed on the agreed upon Scope of Accreditation.

This producer meets the requirements of ISO 17034:2016 *General Requirements for the Competence of Reference Material Producers*. This accreditation demonstrates technical competence for a defined scope and the operation of a quality management system.

Presented this 21<sup>st</sup> day of March 2017.

Vice President, Accreditation Services  
For the Accreditation Council  
Certificate Number 656.02  
Valid to April 30, 2019  
Revised on March 28, 2019



*For reference materials to which this accreditation applies, please refer to the reference material producer's Scope of Accreditation.*