

BRAMMER STANDARD COMPANY, INC.

Provisional Certificate of Analysis BS 1763

Certified Reference Material for Low Alloy Steel

Estimated Analysis ¹		Estimated Analysis ¹	
Analysis listed as percent by weight			
Al	0.052	Nb	0.14
As	0.072	Ni	0.53
B	0.003	O	<0.05
C	0.27	P	0.017
Ca	0.0002	Pb	0.003
Co	0.12	S	0.025
Cr	0.56	Sb	<0.05
Cu	0.18	Si	0.68
Fe	[94.6]	Sn	0.015
H	<0.005	Ta	<0.5
Mg	<0.005	Ti	0.31
Mn	1.50	V	0.29
Mo	0.55	W	0.023
N	<0.05	Zr	0.027

¹ The estimated value listed is the present best estimate of the true value. Values are given in weight percent.

Form: This CRM is machined in the form of a disc approximately 37mm in diameter and 20mm thick by Brammer Standard Company, Inc.

A detailed final certificate of analysis will be supplied by June 7, 2024.

Homogeneity: This Certified Reference Material (CRM) was tested for homogeneity using ASTM Standard Method E826 and found acceptable. It was also examined by spark atomic emission spectrometry and found to be compatible with the following Reference Materials — BS 42, 42A, 231; CMSI 2075; SRM 1163, 1262A, 1263A; USS Y.

Validity statement: ISO Guide 31 states that the certification should contain an expiration date for all materials where instability has been demonstrated or is considered possible, after which the certified value is no longer guaranteed by the certifying body. The certification of BS 1763 is valid indefinitely. The certification is nullified if this CRM is damaged, contaminated, or otherwise modified.

Storage: This CRM must be stored in a cool, dry, non-corrosive environment.

Certified Area: The certified area of each disc is the portion extending upward 10 mm from the larger diameter surface.

Note: Shrinkage cavities may appear in the top portion of some discs. These cavities are normal and will not affect the certified portion of the disc.

Sample Preparation: For best analytical results, use the same method for preparing the analytical surface on all reference materials as used for production specimens. Avoid overheating the sample during surface preparation.

Caution: CRM contains significant insoluble soft metal inclusions. Surface smearing may occur. Spark atomic emission spectrometers may require extended preburns to compensate.

Safety Notice: A Safety Data Sheet (SDS) is not required for this material. This material will not release or otherwise result in exposure to a hazardous chemical, under normal conditions of use. Inquiries concerning this Reference Material should be directed to:

Brammer Standard Co., Inc.
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Houston, Texas 77069-2895 USA

Phone: (281) 440-9396
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Web: www.brammerstandard.com
Email: contact@brammerstandard.com

Certified by: _____ on June 7, 2022.

Beau R. Brammer
President