AMETEK® ReadingAlloys advanced engineered materials

Technical Data Sheet

Master Alloys – Molybdenum

INTRODUCTION

Reading Alloys innovates and produces superior master alloys, specialty alloys and metal powder products renowned for high purity and specific material characteristics. From aerospace to medical, to military to electronics, applications that demand the ultimate in performance rely on Reading Alloys' products. The company is widely recognized for its expertise in aluminothermic smelting, induction melting, vacuum sintering, metal powder production and electron beam refining.

Recognized as a premier supplier in applications where ultimate quality is critical; Reading Alloys produces high–purity materials in accordance with a certified ISO 9001 / AS 9100 quality management system and tested by a Nadcap accredited analytical laboratory. Our company maintains comprehensive quality assurance processes and precision material characterization systems to support the continued development of our core master alloys and high-purity fine powders.

APPLICATIONS

Reading Alloys produces several molybdenum master alloys for both the aerospace and non-aerospace industries. Aerospace applications include alloys for the production of jet engine components. Molybdenum master alloys are used in high-strength and high-temperature applications for specialty steels, oil pipelines and aircraft and missile components.

Molybdenum is a cost-effective metal known for imparting strength and stability in high-heat applications. Titanium alloys such as 6242, 6246, and Ti17 utilize the benefits of molybdenum to develop their unique properties. Reading Alloys' close control of raw materials and processes allow us to produce a variety of high end Al/Mo master alloys that can be used with confidence in the production of these critical alloys.

Reading Alloys unparalleled experience in alloy design and manufacturing enable us to gain an in-depth understanding of customer specific material requirements and expectations. Please contact us to review your requirements at rai.technical@ametek.com.

Continuous product development may make it necessary to change product details without notice.

AMETEK Reading Alloys, Inc.
220 Old West Penn Avenue | Robesonia, PA 19551 U.S.A.
Telephone: +1 610.693.5822 | Fax: +1 610.693.5542
www.reading-alloys.com | www.ametekmetals.com
AMETEK ASIA PACIFIC
No. 43 Changi South Avenue 2#04-01 Singapore 486164
Tel: +65-6484-2388 Fax: +65-6481-6588
中国区代理商：杭州群创贸易有限公司
地址：浙江 杭州经济技术开发区23号大街世茂广场1-2-1304
电话: 0571-86842735 | 传真: 0571-86847800
网址：www.qctrading.cn

ISO 9001 / AS9100 Certified

CORPORATE OVERVIEW

AMETEK Reading Alloys is a unit of the AMETEK Specialty Metal Products (SMP) business operating within the Engineered Materials, Interconnects & Packaging (EMIP) division of AMETEK Inc., a leading global manufacturer of electronic instruments and electromechanical devices with annualize sales of $3.5 billion. AMETEK has approximately 14,000 employees at over 120 manufacturing facilities in nearly 30 countries around the world.

.25M913W (610005)

AMETEK ReadingAlloys advanced engineered materials Specifications

Featured Molybdenum Alloys Available from Reading Alloys

Element %	35Al-65Mo	45Al-55Mo-Ti	Al-Mo-V-Ti	50Mo-50Ti
Aluminum	34-38%	40-45%	14-21%	--
Molybdenum	62-66%	50-55%	26.5-28.5%	48-52%
Titanium	0.3% Max	2-5%	3% Max	48-52%
Vanadium	--	0.05% Max	48-53%	--
Boron	0.01% Max	0.005% Max	0.005% Max	0.01% Max
Carbon	0.05% Max	0.10% Max	0.05% Max	0.10% Max
Chromium	--	0.05% Max	--	--
Copper	--	0.05% Max	0.03% Max	--
Iron	0.20% Max	0.40% Max	0.30% Max	0.50% Max
Magnesium	--	0.05% Max	--	--
Manganese	--	0.05% Max	--	--
Nickel	--	0.05% Max	--	--
Phosphorous	--	0.015% Max	0.02% Max	--
Silicon	0.25% Max	0.30% Max	0.20% Max	--
Sulfur	0.01% Max	0.02% Max	0.01% Max	0.01% Max
Tungsten	--	0.04% Max	--	0.01% Max
Yttrium	--	--	--	0.01% Max
Hydrogen	--	0.03% Max	--	0.05% Max
Nitrogen	0.025% Max	0.03% Max	0.03% Max	0.07% Max
Oxygen	0.15% Max	0.10% Max	0.20% Max	0.40% Max

RAI ID#	RAI-0096	RAI-0007	RAI-0024	RAI-0068
Standard Size*	20 mesh x down	• 3/8" x 20 mesh • -20 mesh • -50 mesh	-20 mesh	1/4" x down
Packaging**	1000 lb open-head steel drums (55 gallon)	1000 lb open-head steel drums (55 gallon)	1000 lb open-head steel drums (55 gallon)	1000 lb open-head steel drums (55 gallon)

* Other sizes available upon request.

** Other packaging available upon request.

Continuous product development may make it necessary to change product details without notice.

AMETEK®
SPECIALTY METAL PRODUCTS
READING ALLOYS

AMETEK Reading Alloys, Inc. | 220 Old West Penn Avenue | Robesonia, PA 19551 U.S.A.

Telephone: +1 610.693.5822 | Fax: +1 610.693.5542 | www.reading-alloys.com | www.ametekmetals.com
AMETEK ASIA PACIFIC | No. 43 Changi South Avenue 2#04-01 Singapore 486164 | Tel: +65-6484-2388 | Fax: +65-6481-6588
中国区代理商：杭州群创贸易有限公司 | 地址：浙江 杭州经济技术开发区23号大街世茂广场1-2-1304
电话: 0571-86842735 | 传真: 0571-86847800 | 网址：www.qctrading.cn

ISO 9001 / AS9100 Certified

.25M913W (610005)

Printed in the U.S.A.