

April 10, 2007

CUSTOMER:	AMS
SPECIFICATION:	5629E
DATE:	10/06
SUPERSEDES:	D, 05/95
TYPE:	13-8

The above specification has been reviewed and approved by Allegheny Ludlum (ALC) with the following exceptions:

- AMS 5629 covers bars, forgings and extrusions that are not products produced by Allegheny Ludlum: ALC's review is for providing plate product to this specification. If the application is industrial rather than aerospace, we suggest ASTM A693 for plate that ALC has no exceptions.
- 2.1 SAE Publications—Allegheny Ludlum can not agree to AMS 2300 or MAM 2300 that are magnetic particle tests that produce false positive readings due to the presence of ferrite stringers. Instead ALC offers to ultrasonic test plates equal to or greater than .375 inches per ASTM A578 or will consider other appropriate ultrasonic test specifications. Ultrasonic testing will be preformed at a cost extra if noted on the purchase order from the customer. Moreover, ultrasonic testing evaluates the entire product, whereas, magnetic particle method tests only a small region.
- 1.3 Classification—Allegheny Ludium will provide Type II material only.
- 3.5.1.1 Macrostructure—ALC can not agree to macroetch test. This test is appropriate for billets and bars but not plate. Instead, we ultrasonic test plate.

For dimensional tolerances Allegheny Ludlum only agrees to mechanical property, grain size and ferrite content requirements for our plate product.

7. Rejection—Rejection of material shall be based upon non-conformance to the specification as modified by our exceptions and requirements established on our Sales Orders.

Allegheny Ludlum will work to the latest published revision that has been reviewed and accepted by Allegheny Ludlum of any referenced specification.

Specification AMS 5629E dated 10/06, along with these current exceptions, shall apply only to orders received and accepted after April 12, 2007. Open orders and material previously produced or currently in process are not certified to AMS 5629E dated 10/06 and these current exceptions.

Receipt of the exception(s) to the specification indicated is hereby acknowledge Allegheny Ludium will self its products only according to such exception agreed to in writing by Allegheny Ludium. Approval of this specification accept orders for this grade.	ns, unless any changes to such exceptions are
Signed	Company
Title	Date



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October 24, 2008 Supercedes letter dated 4/10/2007

CUSTOMER:	AMS	
SPECIFICATION:	5864C	
DATE:	03/2008	
SUPERSEDES:	B, 01/2003	
TYPE:	13-8	

The above specification has been reviewed and approved by ATI Allegheny Ludlum (ATI-AL) with the following exceptions:

- 2.1 SAE Publications—ATI-AL can not agree to AMS 2300 which is a magnetic particle test that produces false positive readings due to presence of ferrite stringers. Instead, ATI-AL will ultrasonic test plates100% to ASTM A578 for gauges greater than or equal to .375 inches thick, or will consider other appropriate ultrasonic test specifications. Ultrasonic testing will be performed at a cost extra if noted on the purchase order from the customer. Moreover, ultrasonic testing evaluates the entire plate, whereas, magnetic particle method tests only a small region.
- **3.5.2.2 Ferrite Determination** ATI-AL will not report or work to the ferrite thickness to length ratio, the 2% maximum is acceptable.

ATI-Allegheny Ludlum will work to the latest published revision that has been reviewed and accepted by Allegheny Ludlum of any referenced specification.

Please sign and return a copy of this correspondence to the above address or fax number.

Sincerely,

J. K. Marinchek

Quality Analyst

Receipt of the exception(s) to the specification indicated is hereby acknowledged, and it is understood and agreed that Allegheny Ludlum will sell its products only according to such exceptions, unless any changes to such exceptions are agreed to in writing by Allegheny Ludlum. Approval of this specification is not intended to indicate that we will or will not accept orders for this grade.		
Signed	Company	
Title	Date	