



2331 Topaz Drive, Hatfield, PA 19440
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Certified Test Report

CSC002-05-11-29581-1

CHARPY APPROVED



SOLD TO
Chapel Steel Company
Attn: Tara Townsend
P.O. Box 1000
Spring House, PA 19477

SHIP TO
Chapel Steel Company
Building 2E, Suite 106
191 South Keim Street
Pottstown, PA 19464
ATTN: Gary Halteman

CUSTOMER P.O.
73911

CERTIFICATION DATE
11/7/05

SHIP VIA
FAX AND MAIL

DESCRIPTION

2 pcs 5" x 7" Test Samples, 1pc .3/4" Thick and 1pc 3/8" Thick ASTM A709-01b, Gr *50WT2, Heat #1U345
Reference: Customer #11686, Customer PO #13331-3059, Chapel W.O. #73911

***AMENDED CERTIFICATION (12/07/2005)**

Longitudinal Charpy V-Notch Impact testing at 40° F was performed on (2) sets of the submitted Test Specimens and (2) sets were found to be in conformance to ASTM A709-01b⁶³ and Customer's Requirements with the following results:

SAMPLE SIZE REQUIRED	PIECE NO.	FT-LBS. 15 MIN. AVG.	LAT. EXP.	% SHEAR
3/4"	1	79	.066"	65
	2	74	.062"	65
	3	75	.083"	65
3/8"	1	76	.083"	100
	2	77	.079"	100
	3	77	.078"	100

NOTE: Sub-size (9mm x 10mm) charpy specimens were used for testing 3/8" sample.
*This clarification is in response to Chapel Steel's request to explain why LTI used the average energy (Yield) to determine the temperature to perform the Charpy Notch Test. Chapel Steel Work Order # 73911 identified the heat as 1U345.

ASTM A709-1b Table S1-2 Notes:
Note A states "The CVN-impact testing shall be "H" heat frequency testing in accordance with Specification A673/A 673M."

Note B states "If the yield point of the material exceeds 65 Ksi (450 MPa), the testing temperature for the minimum average energy required shall be reduced by 15°F (8°C) for each increment of 10 Ksi (70 MPa). The yield point is the value given on the certified "Mill Test Report."

Chapel Steel identified that LTI use the requirements from ASTM A709/A 709 M 50WT2 Specification. Using the Notes in Table S1-2 for the Grade that was identified on the Work Order we determined that as long as the same heat is being tested that we could average the Yield on the CItasteel Material Test Report, which gave two Yields for the same heat. (69 & 62 Ksi - Ave. 65.5 Ksi)

The services performed above were done in accordance with LTI's Quality System Program Manual Revision 17 dated 12/3/04 and ISO/IEC 17025. These results relate only to the items tested and this report shall not be reproduced, except in full, without the written approval of Laboratory Testing, Inc. LTI is accredited by NADCAP to ISO/IEC 17025, Material's Testing and NDT (MT, PT and UT).

MERCURY CONTAMINATION: During the testing and inspection, the product did not come in direct contact with mercury or any of its compounds nor with any mercury containing devices employing a single boundary of containment.

By:
QA Manager

NOTE: The recording of false, fictitious or fraudulent statements or entries on this document may be punished as a felony under Federal Statutes.