CHAPEL STEEL CO.

PO/Rel

QUALITY CONTROL APPROVED

FOSTER-PRECISE

Attn:

Certificate of Mill Test Results

PHL-000000-000

PART NO.

Pg 1/1

CitiSteel USA INCORPORATED

4001 PHILADELPHIA PIKE
CLAYMONT, DELAWARE 19703 U.S.A.

MATERIAL TEST REPORT

SOLD TO:
CHAPEL STEEL COMPANY
P.O. BOX 1000
SPRING HOUSE, PA

MILL ORDER	BILL OF LADING	CUSTOMER P.O. NO.	DATE
176948	220029	PHL-5954	09/21/05

SPECIFICATION

ASTM A588-94 GRADE A, 1995 ED.
ASTM A588-94 GRADE B, 1995 ED.

Unless otherwise specified, the following conditions apply: 1. Material is 100% melted and manufactured in the USA. 2. Mercury, radium or alpha source materials have not been used. 3. Test piece serial # represents actual plate tested, not necessarily plate shipped (except PVQ where every plate is tested).

CHEMICAL ANALYSIS

HEAT	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	Al	V	Nb	N	Acid Soluble Al	Ti	B
1U318	0.14	0.89	0.007	0.022	0.39	0.29	0.11	0.52	0.029	0.028	0.009	0.032	0.004	0.011	0.008	0.002	0.0006
1U324	0.14	0.88	0.005	0.013	0.40	0.27	0.13	0.52	0.031	0.021	0.008	0.041	0.003	0.010	0.008	0.003	0.0006
1U345	0.15	0.89	0.010	0.017	0.38	0.31	0.12	0.56	0.031	0.023	0.011	0.041	0.005	0.010	0.008	0.003	0.0006

DIMENSION							TENSILE TESTS					IMPACT TESTS									
HEAT	NO PCS	GAUGE (IN)	WIDTH (IN)	LENGTH (IN)	TEST PIECE SERIAL #	NORM	TENSILE (KSI)	YIELD (KSI)	ELONG %	ELONG IN	BEND	TEST TEMP (F)	FT-LBS 1	FT-LBS 2	FT-LBS 3	MILS LAT EXP 1	MILS LAT EXP 2	MILS LAT EXP 3	% SHEAR 1	% SHEAR 2	% SHEAR 3
1U318	2	0.3750	96.0000	480.0000	776630		86	71	17	8											
1U324	2	0.3750	96.0000	480.0000	776024		85	71	18	8											
1U324	-	0.3750	96.0000	480.0000	776141		81	55	28	2											
1U345	3	0.3750	96.0000	480.0000	776836		83	69	20	8											
1U345	-	0.3750	96.0000	480.0000	777136		80	62	25	2											

OTHER TESTS / INFORMATION

I CERTIFY THE ABOVE RESULTS TO BE CORRECT AS CONTAINED IN THE RECORDS OF THE CORPORATION

D. J. Cernava

DAVID J. CERNAVA
CHIEF METALLURGIST

Doc No. 138590 Indexed 23Sep05 by garyh

(Wgt: 34304 lbs) Page: 1 (Tot Pcs: 7)