



APM Division de: IMSA-MEX, SA DE CV

Reference: Miprcert1e.Rpt
Date: 21 Oct 2003

Page: 1 of 2

TEST CERTIFICATE No. MTY 520769

1/2 x 60
E-10 897-1
F 1442
A 3060

Ship from:
APM Division de: IMSA-MEX, SA DE CV

Carubusco #1000
Santa Fé
Santerrey, Nuevo León 64540
8329-5000 Fax: 8329-5024

P/O No. 402000458
S/O No. MTY 49332 / 1
B/L No. MTY 497479 / 1
Inv No. MTY

Shp. 21/10/2003

Ship to:
(650)
MINA Y PLACA COMERCIAL, SA DE CV
OCAMPO # 250 PTE. 6o.PISO A
L. CENTRO
SAN TERREY, N.L.
LPC-990316-N43 64000

Ship to:
MAQUILAS METALICAS, SA DE CV
DIEGO DIAZ DE BERLANGA 1005 SUR
COL. VALLE DEL NOGALAR

SAN NICOLAS DE LOS GZ

CERTIFICATE OF ANALYSIS AND TEST

Cert. No. MTY 520769

SE 0.500X60.00-A36
ROL DE AC. ROL EN CAL ASTM A36
12.70 mm x Ancho 1524 mm (GaN 0.5000 in. x Ancho X60.00-A36 in.)

Heat	Properties	Tag	Pcs.	Weight
0332695	PCED=41.3-41.3/RTEN=63.7-63.7/%ELON=40-40/APRO=<ALLOPEZ>/ THICKNESS=12.6560	644156A / 81	1	12,614
0342957	PCED=47.3-47.3/RTEN=68.1-68.1/%ELON=35.4-35.4/APRO=<ALLOPEZ>/ THICKNESS=12.7130	644157A 83	1	10,560
0322908	PCED=39.2[PCED=270.37(0.00-0.00)] / RTEN=62.6[RTEN=431.76(0.00-0.00)] / %ELON=39.6 / APRO=<ALL> / THICKNESS=12.6660	644162A / 82	1	12,770

3 35,944

**** Chemical Analysis ****

Heat	Chemical Analysis
0322908	C=0.181 Mn=0.697 Si=0.157 P=0.0074 S=0.004 Al=0.0355
0332695	C=0.183 Mn=0.684 Si=0.184 P=0.0072 S=0.0032 Al=0.0493
0342957	C=0.191 Mn=0.714 Si=0.168 P=0.0066 S=0.005 Al=0.0458

Vilacero
CENTROS DE SERVICIO
LABORATORIO
CONTROL DE CALIDAD

E 10650-1

Reference: Miprcert1e.Rpt
Date: 25 Nov 2003

APM Division de: IMSA-MEX, SA DE CV

Page: 1 of 1

1/2 x 60

TEST CERTIFICATE No. MTY 528610

Ship from:
APM Division de: IMSA-MEX, SA DE CV
Churubusco #1000
Col. Santa Fé
Monterrey, Nuevo León 64540
Tel. 8329-5000 Fax: 8329-5024

P/O No. 402000764
S/O No. MTY 52747 / 5
B/L No. MTY 505661 / 2
Inv No. MTY

Shp. 25/11/2003

Sold to: (650)
LAMINA Y PLACA COMERCIAL, SA DE CV
AV. OCAMPO # 250 PTE. 6o.PISO A
COL. CENTRO
MONTERREY, N.L.
RFC: LPC-990316-N43 64000

Ship to:
MAQUILAS METALICAS, SA DE CV
DIEGO DIAZ DE BERLANGA 1005 SUR
COL. VALLE DEL NOGALAR
SAN NICOLAS DE LOS GZ.

CERTIFICATE OF ANALYSIS AND TEST Cert. No. MTY 528610

RC01-260000ESE 0.500X60.00-A36
ROLLO DE AC. ROL. EN CAL. ASTM A36
GaN 12.70 mm x Ancho 1524 mm (GaN 0.5000 in. x Ancho X60.00-A36 in.)

Heat	Properties	Tag	Pcs.	Weight
0323747	PCED=37.4-43.3/RTEN=64.5-66.8/%ELON=40-40.8/APRO=<JAJ> THICKNESS=12.7220	655438A	1	10,556

1 10,556

Heat	**** Chemical Analysis ****
0323747	C=0.185 Mn=0.696 Si=0.181 P=0.0107 S=0.002 Al=0.0501

MECHANICAL TESTS RESULTS ARE IN PSI AND THE PERCENT OF ELONGATION IS IN 2" OF CALIBRATED LENGTH.
FOR ANY QUESTION WE JUST ACCEPT THEM FROM THE CUSTOMER ABOVE MENTIONED AND WITH THE ORIGINAL DOCUMENT.
WE HEREBY CERTIFY THAT THE INFORMATION HERE REPORTED IS CORRECT AND EXIST IN THE FILES OF THE COMPANY.

The equipment and test methods used for to get the results above described as apply, are as follows:
Hardness-ASTM E 18-02- Hardness Tester-LA-E-0002.LA-E-0003
Cup Erichsen Test- ASTM E 643-84(2000)- T.O. Cup Tester-LA-E-0005
Tensile Test-ASTM E 8-01,ASTM A 370-01, ASTM E-517-01, ASTM E-646-00
- T.O.Tensile Machine-LA-E-0001, LA-E-0083
Grain Size- ASTM E 112-96,-Metallurgical Microscope Nikon LA-E-0006
Non Metallic Inclusions-ASTM E 45-97 - Metallurgical Microscope Nikon LA-E-0006
Magnetic Properties-ASTM A 343-97- Epstein Tester LA-E-0058

LABORATORY'S CHIEF

Villacero
CENTROS DE SERVICIO
LABORATORIO
CONTROL DE CALIDAD