

APM Division de: IMSA-MEX, SA DE CV

TEST CERTIFICATE No. MTY 570833

A1747

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. 100000013
S/O No. MTY 58281 / 5
B/L No. MTY 549274 / 1
Inv No. MTY

Shp. 08/05/2004

Sold to: (1269)
PLESA ANAHUAC Y CIA. S.A. DE C.V.
AV. VALLE DE LAS ALAMEDAS # 66-O
COL. SAN FRANCISCO CHILPAN
TULTITLAN. EDO. DE MEXICO
RFC: PAC-040303-UY6 CP 54940

Ship to:
PLESA ANAHUAC Y CIA. S.A. DE C.V.
AV. VALLE DE LAS ALAMEDAS # 66-O
COL. SAN FRANCISCO CHILPAN
TULTITLAN. EDO. DE MEXICO
RFC: PAC-040303-UY6 CP 54940

CERTIFICATE OF ANALYSIS AND TEST Cert. No. MTY 570833

RCTDAM0.135X36.00-1010 11T
R.C.TEMP.DEC.ACEIT.O.M. SAE-1010
GaN 3.43 mm x Ancho 915 mm (GaN 0.1350 in. x Ancho X36.00-1010 11T in.)

Heat	Properties	Tag	Pcs.	Weight
0410928	FTEMP/CTEMP/XRAY=<0.976>/CROWN=<0.0221->/MILLS=<0000000500> THICKNESS=3.4300	702010C	1	8,130
0410928	FTEMP/CTEMP/XRAY=<0.976>/CROWN=<0.0221->/MILLS=<0000000500> THICKNESS=3.4300	702010D	1	7,296
0421365	FTEMP/CTEMP/XRAY=<0.976>/CROWN=<0.0381->/MILLS=<0000000500> THICKNESS=3.4260	702011C	1	8,018
0421365	FTEMP/CTEMP/XRAY=<0.976>/CROWN=<0.0381->/MILLS=<0000000500> THICKNESS=3.4260	702011D	1	7,832
0421365	FTEMP/CTEMP/XRAY=<0.976>/CROWN=<0.0546->/MILLS=<0000000500> THICKNESS=3.4260	702013C	1	8,300
0421365	FTEMP/CTEMP/XRAY=<0.976>/CROWN=<0.0546->/MILLS=<0000000500> THICKNESS=3.4260	702013D	1	7,434

6

47,010

Heat	**** Chemical Analysis ****
0410928	C=0.094 Mn=0.34 Si=0.018 P=0.006 S=0.005 Al=0.039
0421365	C=0.084 Mn=0.35 Si=0.008 P=0.008 S=0.012 Al=0.04

APM Division de: IMSA-MEX, SA DE CV



TEST CERTIFICATE No. MTY 570833

A 1747

THE 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
- Magetic Properties-ASTM A 343-97- Epstein Tester LA-E-0058



LABORATORY'S CHIEF

**División Aceros Planos**

Ave. los Angeles Ote. #325 C.P. 66452

San Nicolás de los Garza N.L. México Tel. + 52 81 8865-2828

**CERTIFICADO OFICIAL/
MILL TEST CERTIFICATE**Hylsa S.A. de C.V.
Registrado por ISO 9002
#4002Cliente/Customer **PLASA ANAHUAC Y CIAS. S.A. DE C.V.**Dirección/Address **AV. VALLE DE LAS ALAMEDAS 66 SN. FCO.****TULTITLAN, EDO. DE MEXICO****A1542**No. Cert: **761713**Pág./ Page: **1**De/Of: **1**

Cliente/Customer		Pedido/ Mill Order		Fecha/Date		Remisión/ Delivery Order					
Número/Code	Pedido/Contract			Emisión/Printed		Reimpresión/Reprinted					
0232500	O.C. 1000000	138066		07- MAY -2004		7- MAY -2004					
Part/ Item	Espesor/Thickness		Ancho/Width		Largo/Length		Producto/ Product	Acab./ Finish	Norma Calidad/ Quality	Recubrim./Coating	
	mm	in	mm	in	mm	in				A	B
02	6.35	0.2500	1,219	48.000	0.00	0.000	RCS D	SD	A36		

Secuencia / Coil Number 131373-000

Partida / Item 02

Colada / Heat 24483

Propiedades Mecánicas	Longitudinal	EC/YS	Kg/cm2	LI-LS/LL-UL	Real/Actual	
Tensión	EM/TS	PSI	Kg/cm2	LI-LS/LL-UL	Real/Actual	
Elongación	%	Elongación	%	LI-LS/LL-UL	Real/Actual	
Tensión	EC/YS	PSI	Kg/cm2	LI-LS/LL-UL	2,532-MIN	
						4,610
Tensión	EM/TS	PSI	Kg/cm2	LI-LS/LL-UL	36,013-MIN	
						65,569
Tensión	EC/YS	PSI	Kg/cm2	LI-LS/LL-UL	4,079-5,626	
						5,005
Tensión	EM/TS	PSI	Kg/cm2	LI-LS/LL-UL	58,016-80,020	
						71,187
Elongación	%	Elongación	%	LI-LS/LL-UL	23-MIN	
						34

Colada/Heat 24483

% Análisis Químico	LI-LS Real	24483	
% Análisis Químico	LI-LS Real	C	0.250-MAX 0.070
		Mn	0.820
		P	0.040-MAX 0.009
		S	0.050-MAX 0.004
		Si	0.400-MAX 0.020
% Análisis Químico	LI-LS Real	Al	0.035

Fecha: 03-Jul-1995
 REVISION NO.5 CVE F-E-CP-10-03-05
 EFECTIVO A PARTIR DE: JULIO 2003

(+) Secuencia Compañera/Partner Coil
 (LL-UL) Lower Limit - Upper Limit
 (LI-LS) Límite Inferior - Límite Superior
 (EC/YS) Esfuerzo Cedencia/Yield Strength
 (EM/TS) Esfuerzo Máximo/Tensile Strength

ING. FIDEL MARTÍN GUAJARDO
 JEFE DE CERTIFICACIÓN DE PRODUCTO
 PRODUCT CERTIFICATION

0607417448



APM Division de: IMSA-MEX, SA DE CV

TEST CERTIFICATE No. MTY 570784

A 1721

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. 100000007
S/O No. MTY 58278 / 1
B/L No. MTY 549086 / 1
Inv No. MTY

Shp. 07/05/2004

Sold to: (1269)
PLESA ANAHUAC Y CIA. S.A. DE C.V.
AV. VALLE DE LAS ALAMEDAS # 66-O
COL. SAN FRANCISCO CHILPAN
TULTITLAN. EDO. DE MEXICO
RFC: PAC-040303-UY6 CP 54940

Ship to:
PLESA ANAHUAC Y CIA. S.A. DE C.V.
AV. VALLE DE LAS ALAMEDAS # 66-O
COL. SAN FRANCISCO CHILPAN
TULTITLAN. EDO. DE MEXICO
RFC: PAC-040303-UY6 CP 54940

CERTIFICATE OF ANALYSIS AND TEST Cert. No. MTY 570784

002031 RCTDAM0.105X48.00-1010
R.C.TEMP.DEC.ACEIT.O.M. SAE-1010
GaN 2.67 mm x Ancho 1220 mm (GaN 0.1050 in. x Ancho X48.00-1010 in.)
002031

Heat	Properties	Tag	Pcs.	Weight
0440974	FTEMP/CTEMP/XRAY=<0.976>/CROWN=<0.0355->/MILLS=<0000000300> THICKNESS=2.6660	697049D	1	9,100
0440974	FTEMP/CTEMP/XRAY=<0.976>/CROWN=<0.0355->/MILLS=<0000000300> THICKNESS=2.6660	697049E	1	8,070

2 **17,170**

Heat	**** Chemical Analysis ****
0440974	C=0.09 Mn=0.351 Si=0.0132 P=0.0053 S=0.007 Al=0.0447

THE MECHANICAL TESTS RESULTS ARE IN PSI AND THE PERCENT OF ELONGATION IS IN 2" OF CALIBRATED LENGTH.
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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



APM Division de: IMSA-MEX, SA DE CV

TEST CERTIFICATE No. MTY 570783

A 1719

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. 100000113
S/O No. MTY 58277 / 2
B/L No. MTY 549085 / 1
Inv No. MTY

Shp. 07/05/2004

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PLESA ANAHUAC Y CIA. S.A. DE C.V.
AV. VALLE DE LAS ALAMEDAS # 66-O
COL. SAN FRANCISCO CHILPAN
TULTITLAN. EDO. DE MEXICO
RFC: PAC-040303-UY6 CP 54940

Ship to:
PLESA ANAHUAC Y CIA. S.A. DE C.V.
AV. VALLE DE LAS ALAMEDAS # 66-O
COL. SAN FRANCISCO CHILPAN
TULTITLAN. EDO. DE MEXICO
RFC: PAC-040303-UY6 CP 54940

CERTIFICATE OF ANALYSIS AND TEST Cert. No. MTY 570783

PCO.375X48.000-APMC36 18TN
ROLLO DE AC. ROL. EN CAL.ASTM A36
GaN 9.53 mm x Ancho 1220 mm (GaN 0.3750 in. x Ancho X48.000-APMC36 18TN in.)

Heat	Properties	Tag	Pcs.	Weight
0420932	PCED=46.9-46.9[PCED=323.48(0.00-0.00)] / RTEN=66.4-66.4[RTEN=457.97(0.00-0.00)] / %ELON=38.2-38.2 / APRO=<JAESTRAD> THICKNESS=9.5250	69823	1	8,440

1 8,440

Heat	**** Chemical Analysis ****
0420932	C=0.171 Mn=0.667 Si=0.187 P=0.0107 S=0.0077 Al=0.0348

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Cup Erichsen Test- ASTM E 643-84(2000)- T.O. Cup Tester-LA-E-0005
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- 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

APM Division de: IMSA-MEX, SA DE CV

TEST CERTIFICATE No. MTY 570831

A 1745

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. 100000113
S/O No. MTY 58277 / 2
B/L No. MTY 549272 / 1
Inv No. MTY

Shp. 08/05/2004

Sold to: (1269)
PLESA ANAHUAC Y CIA. S.A. DE C.V.
AV. VALLE DE LAS ALAMEDAS # 66-O
COL. SAN FRANCISCO CHILPAN
TULTITLAN, EDO. DE MEXICO
RFC: PAC-040303-UY6 CP 54940

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PLESA ANAHUAC Y CIA. S.A. DE C.V.
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COL. SAN FRANCISCO CHILPAN
TULTITLAN, EDO. DE MEXICO
RFC: PAC-040303-UY6 CP 54940

CERTIFICATE OF ANALYSIS AND TEST Cert. No. MTY 570831

RC0.375X48.000-APMC36 18TN
RÓLLO DE AC. ROL. EN CAL.ASTM A36
GaN 9.53 mm x Ancho 1220 mm (GaN 0.3750 in. x Ancho X48.000-APMC36 18TN in.)

Heat	Properties	Tag	Pcs.	Weight
0440560	PCED=47.2-47.2[PCED=325.55(0.00-0.00)] / RTEN=68.2-68.2[RTEN=470.39(0.00-0.00)] / %ELON=38.2-38.2 / APRO=<JAESTRAD> THICKNESS=9.5250	69838	1	8,605
0440560	PCED=47.2-47.2[PCED=325.55(0.00-0.00)] / RTEN=68.2-68.2[RTEN=470.39(0.00-0.00)] / %ELON=38.2-38.2 / APRO=<JAESTRAD> THICKNESS=9.5250	69839	1	8,780

2

17,385

Heat	**** Chemical Analysis ****
0440560	C=0.2 Mn=0.628 Si=0.186 P=0.0075 S=0.003 Al=0.0398

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- 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
- Magetic Properties-ASTM A 343-97- Epstein Tester LA-E-0058



LABORATORY'S CHIEF

APM Division de: IMSA-MEX, SA DE CV



TEST CERTIFICATE No. MTY 571696

A 1772

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. **PED.URGENTE**
S/O No. **MTY 58475 / 1**
B/L No. **MTY 550206 / 1**
Inv No. **MTY**

Shp. 12/05/2004

Sold to: (1269)
PLESA ANAHUAC Y CIA. S.A. DE C.V.
AV. VALLE DE LAS ALAMEDAS # 66-O
COL. SAN FRANCISCO CHILPAN
TULTITLAN. EDO. DE MEXICO
RFC: PAC-040303-UY6 CP 54940

Ship to:
PLESA ANAHUAC Y CIA. S.A. DE C.V.
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COL. SAN FRANCISCO CHILPAN
TULTITLAN. EDO. DE MEXICO
RFC: PAC-040303-UY6 CP 54940

CERTIFICATE OF ANALYSIS AND TEST Cert. No. MTY 571696

RCT0.250X48.00-APMC36 INV.
R. ACE. ROL. EN CAL TEMP.ASTM A36
GaN 6.35 mm x Ancho 1220 mm (GaN 0.2500 in. x Ancho X48.00-APMC36 INV. in.)
002122

Heat	Properties	Tag	Pcs.	Weight
0324432	PCED=56.4-56.4[PCED=389.00(0.00-0.00)] / RTEN=80.6-80.5[RTEN=555.91(0.00-0.00)] / %ELON=31.6-31.6 / APRO=<JAESTRAD> / MILLS=<0000000300> / CLHIN=<0000000090> THICKNESS=6.3550	676208D	1	8,830
0324432	PCED=56.4-56.4[PCED=389.00(0.00-0.00)] / RTEN=80.6-80.6[RTEN=555.91(0.00-0.00)] / %ELON=31.6-31.6 / APRO=<JAESTRAD> / MILLS=<0000000300> / CLHIN=<0000000090> THICKNESS=6.3550	676208E	1	8,580

2

17,410

Heat	**** Chemical Analysis ****
0324432	C=0.23 Mn=1.3 Si=0.211 P=0.0109 S=0.0089 Al=0.0335

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- T.O.Tensile Machine-LA-E-0001, LA-E-0083
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Non Metallic Inclusions-ASTM E 45-97 - Metallurgical Microscope Nikon LA-E-0006
Magetic Properties-ASTM A 343-97- Epstein Tester LA-E-0058

LABORATORY'S CHIEF