



CERTIFICADO DE CALIDAD / CERTIFICATE OF TEST AND ANALYSIS

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|-----------------------------------|------------------|
| No. Certificado / Certificate No: | 11196 - 10495579 |
| Fecha / Date: | 24/10/2013 |

EXCELENCIA EN CALIDAD

ACE RAMOS

| DATOS DEL CLIENTE / SOLD TO | | CLIENTE CONSIGNADO / SHIP TO | | DATOS DEL EMBARQUE / SHIPPING INFORMATION | |
|---|---------------------------------------|---|---|---|--|
| Cliente / Customer: ACEROMEX SA DE CV | | Cliente / Customer: ACEROMEX MEXICO | | Núm. Viaje / Travel No: 11196 | |
| Dirección / Address: CARRETERA MONTERREY LAREDO KM 27 -- | | Dirección / Address: VIA JOSE LOPEZ PORTILLO # 12 BIS SAN FRANCISCO CHILPAN | | Núm. Factura / Invoice No: FQ009840 | |
| Ciudad / City: CIENEGA DE FLORES Estado / State: N.L. Teléfono / Phone: 81555500 Correo Electrónico / eMail: | País / Country: MEXICO C.P./ZIP 65590 | Ciudad / City: TULTITLAN Estado / State: EDO. DE MEXICO | Pedido / Customer Order No: 10495579 Núm. Plan / Shipping Plan: 12420 Fecha Embarque / Date: 23/10/2013 Orden de Compra / Purchase Order: 4500091265 | | |

| COMPOSICIÓN QUÍMICA / CHEMICAL COMPOSITION (% PESO / WEIGHT) | | | | | | | | | | | | | | | | | | |
|--|----------------------|--------------|--------------------------------------|------|------|------|-------|-------|------|------|------|-------|-------|-------|-------|--------|-------|------|
| Cota / Heat | Secuencia / Sequence | Clave / Code | Producto / Description of Goods | % C | % Mn | % Si | % P | % S | % Cu | % Cr | % Ni | % Mo | % Sn | % Ti | % V | PPM Nb | PPM N | CE |
| | | | | AVG | AVG | AVG | AVG | AVG | AVG | AVG | AVG | AVG | AVG | AVG | AVG | AVG | AVG | AVG |
| 55890 | 1406 | 62108 | SOLERA 1 1/2" x 1/8" A-36 6.10m 2.0T | 0.16 | 0.69 | 0.20 | 0.006 | 0.022 | 0.21 | 0.05 | 0.06 | 0.016 | 0.013 | 0.001 | 0.003 | 0 | 95 | 0.28 |
| 118019 | 1442 | 60221 | SOLERA 1" x 1/8" A-36 6.10m 2.0T | 0.16 | 0.55 | 0.18 | 0.006 | 0.012 | 0.19 | 0.06 | 0.06 | 0.016 | 0.013 | 0.001 | 0.001 | 15 | 96 | 0.28 |
| 2059 | 9593 | 60229 | SOLERA 2" x 1/4" A-36 6.10m 2.0T | 0.21 | 0.74 | 0.17 | 0.006 | 0.004 | 0.16 | 0.07 | 0.05 | 0.017 | 0.010 | 0.000 | 0.003 | 19 | 0 | 0.34 |
| 2062 | 9595 | 60233 | SOLERA 2" x 1/4" A-36 6.10m 2.0T | 0.21 | 0.73 | 0.17 | 0.005 | 0.006 | 0.14 | 0.07 | 0.05 | 0.017 | 0.009 | 0.000 | 0.005 | 7 | 0 | 0.34 |
| 1716 | 9560 | 60233 | SOLERA 3" x 3/8" A-36 6.10m 2.0T | 0.21 | 0.91 | 0.22 | 0.009 | 0.013 | 0.09 | 0.04 | 0.04 | 0.009 | 0.006 | 0.011 | 0.014 | 86 | 0 | 0.37 |
| 117591 | 1563 | 60219 | SOLERA 3/4" x 1/8" A-36 6.10m 2.0T | 0.15 | 0.65 | 0.15 | 0.006 | 0.016 | 0.24 | 0.08 | 0.10 | 0.024 | 0.020 | 0.001 | 0.002 | 10 | 94 | 0.28 |
| 1796 | 9397 | 80353 | CANAL 3" x 4.1A-36 12.20m 4.0T | 0.21 | 0.82 | 0.19 | 0.007 | 0.004 | 0.20 | 0.08 | 0.12 | 0.022 | 0.011 | 0.000 | 0.002 | 22 | 0 | 0.37 |
| 1808 | 9379 | 60390 | CANAL 3" x 4.1A-36 6.10m 2.0T | 0.22 | 0.82 | 0.19 | 0.009 | 0.019 | 0.19 | 0.07 | 0.09 | 0.019 | 0.012 | 0.001 | 0.007 | 25 | 0 | 0.37 |

| PROPIEDADES MECÁNICAS / MECHANICAL PROPERTIES | | | | | | | | | | | |
|---|----------------------|--------------|--------------------------------------|--------------------|--------------------|--------|---------|---------|--------|---------|-----------------------|
| Cota / Heat | Secuencia / Sequence | Clave / Code | Producto / Description of Goods | Calibre / Diameter | Cantidad / Bundles | RT | TS | % Elong | LF | YS | F. Doblez / Bend Test |
| | | | | | | kg/mm² | PSI | AVG | kg/mm² | PSI | AVG |
| 55890 | 1406 | 62108 | SOLERA 1 1/2" x 1/8" A-36 6.10m 2.0T | 1 1/2" x 1/8" | 3 | 41.2 | 58714.1 | 29.5 | 32.8 | 46729.8 | Cumple / Successfully |
| 118019 | 1442 | 60221 | SOLERA 1" x 1/8" A-36 6.10m 2.0T | 1" x 1/8" | 5 | 60.4 | 71771.2 | 39.4 | 37.4 | 53295.0 | Cumple / Successfully |
| 2059 | 9593 | 60229 | SOLERA 2" x 1/4" A-36 6.10m 2.0T | 2" x 1/4" | 4 | 50.7 | 72212.2 | 29.5 | 35.9 | 51175.7 | Cumple / Successfully |
| 2062 | 9595 | 60229 | SOLERA 2" x 1/4" A-36 6.10m 2.0T | 2" x 1/4" | 1 | 50.8 | 72311.7 | 30.5 | 35.2 | 50194.3 | Cumple / Successfully |
| 1716 | 9560 | 60233 | SOLERA 3" x 3/8" A-36 6.10m 2.0T | 3" x 3/8" | 3 | 54.2 | 77119.2 | 45.7 | 39.2 | 65798.3 | Cumple / Successfully |
| 117591 | 1563 | 60219 | SOLERA 3/4" x 1/8" A-36 6.10m 2.0T | 3/4" x 1/8" | 4 | 41.5 | 59055.5 | 25.1 | 28.0 | 41304.7 | Cumple / Successfully |

Certificamos que este material ha sido producido, inspeccionado y probado de acuerdo a las normas de fabricación del acero aplicables, y a las normas dimensionales NMX B 252; ASTM A6/AGM, cumpliendo los resultados obtenidos satisfactoriamente, quedando asentados en los registros de la compañía. El material se encuentra libre de daños al momento de embarcarse. Sin golpes, raspaduras, dobleces, pintura o aceite. / We certify that this material has been produced, inspected and tested according to standards applicable in steelmaking. And to the dimensional standards NMX B 252, ASTM A6/AGM, provided the results satisfactorily, leaving settled in the records of the company. The material is free from damage at the time of shipment. No bumps, scrapes, folds, paints and oils.



[Signature]

FRANCISCO JAVIER VARGAS SOTO
Gerente de Aseguramiento de Calidad / Quality Assurance Manager

