



**Acería Ramos Arizpe**  
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 TRA  
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**CERTIFICADO DE CALIDAD / CERTIFICATE OF TEST  
 AND ANALYSIS**

|                                   |                  |
|-----------------------------------|------------------|
| No. Certificado / Certificate No: | 18445 - 10589541 |
| Fecha / Date:                     | 04/03/2014       |

| DATOS DEL CLIENTE / SOLD TO  |                                | CLIENTE CONSIGNADO / SHIP TO          | DATOS DEL EMBARQUE / SHIPPING INFORMATION |
|--|--------------------------------|---------------------------------------|---|
| Cliente / Customer: PLESA ANAHUAC Y CIAS SA DE CV                        |                                | Cliente / Customer:                   | Núm. Viaje / Travel No: 18445             |
| Dirección / Address: AV VALLE DE LAS ALAMEDAS 66 0 SAN FRANCISCO CHILPAN |                                | Dirección / Address:                  | Núm. Factura / Invoice No: FQ13889        |
| Ciudad / City: TULTITLAN   | Estado / State: EDO. DE MEXICO | Ciudad / City:                        | Estado / State:                           |
| Teléfono / Phone: 10838570   |                                | País / Country: MEXICO C.P./ZIP 64940 |   |
| Correo Electrónico / eMail:  |                                | Pedido / Customer Order No: 10589541  |   |
|  |                                | Núm. Plan / Shipping Plan: 20019      |   |
|  |                                | Fecha Embarque / Date: 04/03/2014     |   |

| COMPOSICIÓN QUÍMICA / CHEMICAL COMPOSITION (% PESO / WEIGHT) |                      |              |   |      |      |      |       |       |      |      |      |       |       |       |       |        |       |     |      |
|--|----------------------|--------------|---|------|------|------|-------|-------|------|------|------|-------|-------|-------|-------|--------|-------|-----|------|
| Colada / 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 |      |
| 2946   | 11755                | 60359        | ANGULO LI 2 1/2" x 2 1/2" x 1/4" A36/A529-50 6.10m 2.0T | 0.22 | 0.85 | 0.19 | 0.006 | 0.002 | 0.17 | 0.06 | 0.14 | 0.023 | 0.013 | 0.002 | 0.005 | 5      | 14    | 0   | 0.38 |

| PROPIEDADES MECÁNICAS / MECHANICAL PROPERTIES |                      |              |   |                        |                   |                       |         |                 |                       |         |                       |  |
|---|----------------------|--------------|---|------------------------|-------------------|-----------------------|---------|-----------------|-----------------------|---------|-----------------------|--|
| Colada / Heat                                 | Secuencia / Sequence | Clave / Code | Producto / Description of Goods                         | Calibre / Diameter     | Cantidad / Bundle | RT kg/mm <sup>2</sup> | TS PSI  | % Elong / Elong | LF kg/mm <sup>2</sup> | YS PSI  | P. Deblez / Bend Test |  |
|   |                      |              |   |                        |                   | AVG                   | AVG     | AVG             | AVG                   | AVG     |                       |  |
| 2946  | 11755                | 60359        | ANGULO LI 2 1/2" x 2 1/2" x 1/4" A36/A529-50 6.10m 2.0T | 2 1/2" x 2 1/2" x 1/4" | 2                 | 57.5                  | 81812.8 | 26.8            | 37.4                  | 53223.9 | Cumple / Successfully |  |



Certificamos que este material ha sido producido, inspeccionado y probado de acuerdo a las normas de fabricación del acero aplicables a la ASTM A36-2008, A529-2005 (re aprobada el 2009), A572-2012 y A992-2011 y a las normas dimensionales NMX B252, ASTM A6/A6M-2012. La información de las propiedades químicas y mecánicas contenida en el presente certificado son valores promedio obtenidos de los registros internos de la compañía, cumpliendo con la norma antes mencionada. / We certify that this material has been produced, inspected and tested according to standards applicable steelmaking to ASTM A36-2008, A529-2005 (Reapproved 2009), A572-2012 and A992-2011, and the dimensional standards NMX B252, ASTM A6/A6M-2012. All information described in the certificate are average values that are based on internal company records in compliance with the above rule.

*[Handwritten signature]*

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