



EXCELENCIA EN CALIDAD

**Acería Ramos Arizpe**  
 CARRETERA MONCLOVA KM 4 NUMERO 2125  
 TRAMO SANTA CRUZ OJO CALIENTE  
 C.P./ZIP RAMOS ARIZPE, COAHUILA  
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**CERTIFICADO DE CALIDAD / CERTIFICATE OF TEST AND ANALYSIS**

|                                   |                   |
|-----------------------------------|-------------------|
| No. Certificado / Certificate No: | 130263 - 21740821 |
| Fecha / Date:                     | 14/10/2018        |

Hecho en México / Made in Mexico

| DATOS DEL CLIENTE / SOLD TO  |                                       | CLIENTE CONSIGNADO / SHIP TO  | DATOS DEL EMBAQUE / SHIPPING INFORMATION |
|--|---------------------------------------|---|--|
| Cliente / Customer: PLESA ANAHUAC Y CIAS SA DE CV                        |                                       | Cliente / Customer: MATRIZ TULTITLAN  | Núm. Viaje / Travel No: 130263           |
| Dirección / Address: AV VALLE DE LAS ALAMEDAS 66 0 SAN FRANCISCO CHILPAN |                                       | Dirección / Address: AV VALLE DE LAS ALAMEDAS 66 0 66 SAN FRANCISCO CHILPAN | Núm. Factura / Invoice No: FQ72860       |
| Ciudad / City: TULTITLAN   | Estado / State: EDO. DE MEXICO        | Ciudad / City: TULTITLAN  | Estado / State: EDO. DE MEXICO           |
| Teléfono / Phone: 10838570   | Pais / Country: MEXICO C.P./ZIP 54940 |   | Pedido / Customer Order No: 21740821     |
| Correo Electrónico / eMail:  |                                       |   | Núm. Plan / Shipping Plan: 139271        |
|  |                                       |   | Fecha Embarque / Date: 14/10/2018        |
|  |                                       |   | Orden de Compra / Purchase Order: 27503  |

| 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  | PPM Nb | PPM N |
|  |                      |              |  | AVG  | AVG  | AVG  | AVG   | AVG   | AVG  | AVG  | AVG  | AVG   | AVG   | AVG   | AVG    | AVG   |
| 31534  | 37905                | 78025        | VIGA R 10" x 19.0 A992/A572-50 12.20m 4.0T | 0.08 | 1.03 | 0.23 | 0.007 | 0.003 | 0.12 | 0.04 | 0.06 | 0.015 | 0.007 | 0.010 | 318    | 84    |

| PROPIEDADES MECÁNICAS / MECHANICAL PROPERTIES |                      |              |  |                    |                   |        |         |                 |        |         |                       |
|---|----------------------|--------------|--|--------------------|-------------------|--------|---------|-----------------|--------|---------|-----------------------|
| Colada / Heat                                 | Secuencia / Sequence | Clave / Code | Producto / Description of Goods            | Calibre / Diameter | Cantidad / Bundle | RT     | TS      | % Elong / Elong | LF     | YS      | P. Doblez / Bend Test |
|   |                      |              |  |                    |                   | kg/mm² | PSI     | AVG             | kg/mm² | PSI     |                       |
| 31534   | 37905                | 78025        | VIGA R 10" x 19.0 A992/A572-50 12.20m 4.0T | 10" x 19.0         | 1                 | 50.8   | 72373.7 | 31.0            | 37.0   | 52736.3 | 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. / 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 y A992-2011, and the dimensional standards NMX B252, ASTM A6/A6M-2012.



*(Signature)*  
**GUSTAVO GABRIEL MANCILLA GARZA**  
 Gerente de Aseguramiento de Calidad / Quality Assurance Manager