



**TERNIUM MEXICO, S.A. DE C.V.**  
**R.F.C. TME-840710-TR4**  
 Av. Universidad No. 992, Colonia Cuauhtémoc, San Nicolás de los Garza, N.L., Código Postal 66450  
 Teléfonos: +52(81)8329-8500  
 www.ternium.com

**CERTIFICADO DE CALIDAD /  
 MILL TEST CERTIFICATE**

**Fecha de Emisión / Date of Issue**  
 (DMA) 07/07/2010

**No. / Document number**  
 736233

**736233**  
 736233

|  |  |   |
|--|--|---|
| <b>Código cliente/ Customer ID</b><br>1269   | <b>Pedido No./ Sales order</b><br>137016   | <b>Orden de compra/ Purchase order</b><br>OC 7968 |
| <b>Cliente/ Customer</b><br>PLESA CIA<br>AV. VALLE DE LAS ALAMEDAS # 66-O COL. SAN FRANCISCO CHILPAN<br>TULTITLAN<br>MX<br>54940 | <b>Remisión/ Delivery</b><br>736233  |   |
|  | <b>Medio de Transporte/ Means of transportation</b><br>Triple eje con susp. de a |   |

**Descripción de mercaderías/ Goods description**  
 ROLLO FRIO RECOCIDO

| Datos Generales / General Data |             |                        |             |       |                            |             |     |              |     |                |      |
|--------------------------------|-------------|------------------------|-------------|-------|----------------------------|-------------|-----|--------------|-----|----------------|------|
| No. Rollo/Coil id.             | Colada/Heat | Recubrimiento/ Coating | Peso/Weight |       | Espesor/ Thickness mm / in | Ancho/Width |     | Largo/Length |     | Capa/Thickness |      |
|                                |             |                        | kg          | lb    |                            | in          | mm  | m            | ft  | oz/ft2         | g/m2 |
| 1408635AE                      | WA4293578   | N/A                    | 7040        | 15541 | 3.42 / 0.1346              | 36.18       | 919 | N/A          | N/A | N/A            | N/A  |
| 1408636AE                      | WA4293252   | N/A                    | 7310        | 16137 | 3.38 / 0.1331              | 36.22       | 920 | N/A          | N/A | N/A            | N/A  |

| Datos Generales / General Data |             |           |                |                         |                               |             |
|--------------------------------|-------------|-----------|----------------|-------------------------|-------------------------------|-------------|
| No. Rollo/Coil id.             | Colada/Heat | TS/ST (1) | No. Parte/Part | Descripción/Description | Norma de Calidad/Quality Norm | Grado/Grade |
| 1408635AE                      | WA4293578   | N/A       |                | ROLLO FRIO RECOCIDO     | ASTM A 1008                   | CS TIPO B   |
| 1408636AE                      | WA4293252   | N/A       |                | ROLLO FRIO RECOCIDO     | ASTM A 1008                   | CS TIPO B   |

1. TS: Tratamiento superficial, Aceitado, Sellado / ST: Superficial treatment, Oiled, Stenciled, etc. 2. LE: Límite elástico / YP: Yield Point 3. RT: Resistencia a la tensión / TS: Tensile Strength  
 4. HRBW: Rockwell B Indentador de WVC 5. L/L: Límite Inferior / Lower Limit 6. LS/UL: Límite Superior / Upper Limit

|  |   |
|--|---|
| <b>Observaciones / Comments</b><br>N/A | <b>C.I. / ID #</b>  |
| <b>Observaciones / Comments</b><br>N/A | <b>Firma / Signature</b><br><br>Ing. Antonio Mani<br>Ternium Labs |

Certificamos que el material aquí descrito ha sido inspeccionado y ensayado por personal autorizado independiente del área de manufactura con resultados satisfactorios en concordancia con la norma arriba descrita.  
 Propiedades Mecánicas bajo las normas ASTM E8, E18, E517, E646, EN-10002, según requerimiento y peso de capa bajo ASTM A90  
 Análisis Químico bajo la norma ASTM E 415 / 1019  
 We here certify that the material described in here has been tested and inspected by authorized personal independent from the manufacturing department with satisfactory results in accordance with requirements of the above specification  
 Mechanical Properties as ASTM E8, E18, E517, E646, EN-10002, as required and coating weight with ASTM A90  
 Chemical Analysis as ASTM E 415 / 1019



**TERNIUM MEXICO, S.A. DE C.V.**

**R.F.C. TME-840710-TR4**

Av. Universidad No. 992, Colonia Cuauhtémoc, San Nicolás de los Garza, N.L., Código Postal 66450

Teléfonos: +52(81)8329-8500

www.ternium.com

**CERTIFICADO DE CALIDAD /  
MILL TEST CERTIFICATE**

Fecha de Emisión / Date of Issue  
(DMA) 07/07/2010

**736233**

736233

No. / Document number  
736233

| Calidad del Acero / Steel Quality (Propiedades Mécanicas Transversales) |             |             |      |                             |           |      |
|---|-------------|-------------|------|-----------------------------|-----------|------|
| No. Rollo/Coil id.  | Colada/Heat | LE / YP (2) |      | % Elongación / Elongation % | RT/TS (3) |      |
|   |             | Mpa         | KSI  |                             | Mpa       | KSI  |
| 1408635AE   | WA4293578   | 276         | 40.0 | 36                          | 362       | 52.5 |
| 1408636AE   | WA4293252   | 219         | 31.7 | 43                          | 325       | 47.1 |

| Calidad del Acero / Steel Quality |             |                           |
|-----------------------------------|-------------|---------------------------|
| No. Rollo/Coil id.                | Colada/Heat | Dureza HRBW/Hardness HRBW |
| 1408635AE                         | WA4293578   | 61                        |
| 1408636AE                         | WA4293252   | 47                        |

| Calidad del Acero / Steel Quality (Análisis Químico/Chemical Analysis) |             |       |       |       |       |       |       |       |       |       |       |       |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| No. Rollo/Coil id.   | Colada/Heat | C     | Mn    | P     | S     | Cu    | Cr    | Ni    | Mo    | Cb    | V     | Ti    |
| 1408635AE  | WA4293578   | 0.040 | 0.210 | 0.015 | 0.005 | 0.001 | 0.010 | 0.020 | 0.001 | 0.019 | 0.001 | 0.001 |

| Calidad del Acero / Steel Quality (Análisis Químico/Chemical Analysis) |             |       |       |       |       |       |       |       |       |       |       |       |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| No. Rollo/Coil id.   | Colada/Heat | C     | Mn    | P     | S     | Cu    | Cr    | Ni    | Mo    | Cb    | V     | Ti    |
| 1408636AE  | WA4293252   | 0.080 | 0.380 | 0.016 | 0.007 | 0.001 | 0.010 | 0.010 | 0.001 | 0.001 | 0.002 | 0.001 |

Notas / Notes:

1. TS: Tratamiento superficial. Aceitado, Sellado / ST: Superficial treatment, Oiled, Stenciled, etc  
4. HRBW: Rockwell B Indentador de WC

2. LE: Limite elástico / YP: Yield Point  
5. L/LL Limite Inferior / Lower Limit

3. RT: Resistencia a la tensión / TS: Tensile Strength  
6. LS/UL Limite Superior / Upper Limit

Observaciones / Comments

N/A.

C.I. / ID #

Firma / Signature

Ing. Antonio Mani  
Ternium Labs

Certificamos que el material aquí descrito ha sido inspeccionado y ensayado por personal autorizado independiente del área de manufactura con resultados satisfactorios en concordancia con la norma arriba descrita.  
Propiedades Mecánicas bajo las normas ASTM E8, E18, E517, E646, EN-10002, según requerimiento y peso de capa bajo ASTM A90  
Análisis Químico bajo la norma ASTM E 415 / 1019  
We here certify that the material described in here has been tested and inspected by authorized personal independent from the manufacturing department with satisfactory results in accordance with requirements of the above specification  
Mechanical Properties as ASTM E8, E18, E517, E646, EN-10002, as required and coating weight with ASTM A90  
Chemical Analysis as ASTM E 415 / 1019