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|--|---|---|
| <br><b>Plant 10</b> | <b>Inspection Document</b><br><b>EN 10204</b><br><b>Prüfbescheinigung</b> | Hilti Operaciones de México<br>MX-87316 MATAMOROS<br>México<br>Tel: +52 868 810 86 60 |
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|---|
| Document No. <i>Dokument Nr.</i><br><br>MTM-017 |
|---|

**Type of Inspection Document/Typ der Prüfbescheinigung**

|   |          |
|---|----------|
| Test report/Werkszeugnis                  | 2.2    ✓ |
| Inspection certificate/Abnahmeprüfzeugnis | 3.1      |

| Item-Nr.  | Product designation         | Customer ref. -Nr. | Batch-Nr.      | Quantity |
|-----------|-----------------------------|--------------------|----------------|----------|
| Sach-Nr.  | Produktbezeichnung          | Kunden Ref. Nr.    | Charge/Los Nr. | Menge    |
| Code art. | Référence produit           | No. ref. de client | Commande No.   | Quantité |
| 385438    | HAS Anchor Rod 5/8 3/4"x21" |                    |                |          |
|           |                             |                    |                |          |
|           |                             |                    |                |          |

Remarks/Bemerkungen/Remarques

**We herewith certify, that the material described above complies with the terms of the order.**

*Hiermit bestätigen wir, dass die oben angeführte Lieferung den Vereinbarungen bei der Bestellung entspricht.*

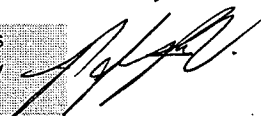
*Nous certifions que la livraison est conforme aux stipulations de la commande.*

*El acero usado para hacer las varillas fue procesado y manufacturado en Italia.*

*The steel used to make the rods was melted and manufactured in Italy.*

**Issuer/Aussteller**  
**Department/Bereich**  
**Contact/Kontakt**

Javier Pena Villalobos  
P10Q Anchors Supply  
52 868-8108665



This inspection document was generated automatically and is valid without signature.

*Dieses Prüfzeugnis wurde automatisch erstellt und ist ohne Unterschrift gültig.*

*Ce test certificate a été créé automatiquement et est valable sans signature*

Date/Datum: 01/25/2013



Plant 10

Inspection Document  
EN 10204  
Prüfbescheinigung

Hilti Operaciones de México  
MX-87316 MATAMOROS  
México  
Tel: +52 868 810 86 60

Document No. Dokument Nr.

MTM-017

| Item-Nr.  | Product designation          | Customer ref. -Nr. | Batch-Nr.      | Quantity |
|-----------|------------------------------|--------------------|----------------|----------|
| Sach-Nr.  | Produktbezeichnung           | Kunden Ref. Nr.    | Charge/Los Nr. | Menge    |
| Code art. | Référence produit            | No. ref. de client | Commande No.   | Quantité |
| 385438    | HAS Anchor Rod 5.8 3/4"x 21" | 0                  | 0              | 0        |

|  |  |     |        |     |  |  |
|--|--|-----|--------|-----|--|--|
| Item designation<br>Sachbezeichnung<br>Reference composant |  | Rod | Washer | Nut |  |  |
|--|--|-----|--------|-----|--|--|

## Inspection values/Prüfergebnisse

## Chemical composition

Chem. Zusammensetzung

|      | set value | actual value | set value | actual value | set value | actual value | set value | actual value | set value | actual value |
|------|-----------|--------------|-----------|--------------|-----------|--------------|-----------|--------------|-----------|--------------|
| C %  | 0.15/0.20 | 0.17         |           | n/a          | max.0.55  | 0.35         |           |              |           |              |
| Si % |           |              |           |              |           |              |           |              |           |              |
| Mn % | 0.60/0.9  | 0.67         |           | n/a          | min.0.3   | 0.70         |           |              |           |              |
| P %  | max.0.040 | 0.012        |           | n/a          | max.0.05  | 0.01         |           |              |           |              |
| S %  | max.0.050 | 0.020        |           | n/a          | max.0.15  | 0.007        |           |              |           |              |
| Cr % |           |              |           |              |           |              |           |              |           |              |
| Mo % |           |              |           |              |           |              |           |              |           |              |
| Ni % |           |              |           |              |           |              |           |              |           |              |
| Cu % |           |              |           |              |           |              |           |              |           |              |
| B %  |           |              |           |              |           |              |           |              |           |              |
| Al % |           |              |           |              |           |              |           |              |           |              |
| N %  |           |              |           |              |           |              |           |              |           |              |
| V %  |           |              |           |              |           |              |           |              |           |              |

## Mech. properties

Mechanische Eigensch. / Mecan. prop.

|                   |         |           |         |         |        |       |  |  |  |  |
|-------------------|---------|-----------|---------|---------|--------|-------|--|--|--|--|
| N                 |         |           |         |         |        |       |  |  |  |  |
| V                 |         |           |         |         |        |       |  |  |  |  |
| Fp                |         |           |         |         | 178.28 | 178.3 |  |  |  |  |
| HV                |         |           | min 140 | 147-167 |        |       |  |  |  |  |
| A                 |         |           |         |         |        |       |  |  |  |  |
| Z                 | >10     | 10.9-13.4 |         |         |        |       |  |  |  |  |
| R <sub>p0.2</sub> | min 420 | 539-549   |         |         |        |       |  |  |  |  |
| R <sub>m</sub>    | min 520 | 565-568   |         |         |        |       |  |  |  |  |

## Layer thickness/Schichtdicke

Epaisseur de couche extérieure

|        |        |       |    |    |    |    |  |  |  |  |
|--------|--------|-------|----|----|----|----|--|--|--|--|
| d (Zn) | min. 5 | 23-29 | >5 | >5 | >5 | >5 |  |  |  |  |
|--------|--------|-------|----|----|----|----|--|--|--|--|

|                |    |  |                   |                   |   |
|----------------|----|--|-------------------|-------------------|---|
| N              | kN | Tension load / Bruchlast Zug / charge de tension                     | Z                 | %                 | Reduction of area / Einschnürung / contraction                            |
| V              | kN | Shear load / Querlast / charge de cisaillement                       | R <sub>p0.2</sub> | N/mm <sup>2</sup> | Yield strength / Streckgrenze / limite d'élasticité conventionnelle       |
| F <sub>p</sub> | N  | Proof load / Prüfkraft / charge limite                               | R <sub>m</sub>    | N/mm <sup>2</sup> | Ultimate tensile strength / Zugfestigkeit / résistance à la traction      |
| HV             | -  | Vickers hardness / Härte Vickers / duete Vickers                     | d (Zn)            | µm                | Mean zinc thickness/ mittlere Schichtdicke Zn / epaisseur de couche de Zn |
| A              | %  | Elongation after fracture / Bruchdehnung / elongation après fracture |                   |                   |   |