





P8

**Inspection Document**  
**EN 10204**  
**Prüfbescheinigung**

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Document No. *Dokument Nr.*

P8\_2.2\_031

| 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 |
| 259949    | HAS-R M10x90/61     |                    |                |          |

| Item designation    | HAS-R     | Rod M10 | Nut M10 | Washer 10.5 |  |  |
|---------------------|-----------|---------|---------|-------------|--|--|
| Sachbezeichnung     | M10x90/61 |         |         |             |  |  |
| Reference composant |           |         |         |             |  |  |

**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 |
|-----------------------|-------------|--------------|-------------|--------------|-------------|--------------|-----------|--------------|-----------|--------------|
| <b>C %</b>            | 0.00-0.07   | 0.03         | 0.00-0.08   | 0.02         | 0.00-0.08   | 0.01         |           |              |           |              |
| <b>Si %</b>           | 0.00-1.00   | 0.10         | 0.00-1.00   | 0.57         | 0.00-1.00   | 0.41         |           |              |           |              |
| <b>Mn %</b>           | 0.00-2.00   | 1.85         | 0.00-2.00   | 1.41         | 0.00-2.00   | 1.43         |           |              |           |              |
| <b>P %</b>            | 0.000-0.045 | 0.026        | 0.000-0.050 | 0.031        | 0.000-0.050 | 0.03         |           |              |           |              |
| <b>S %</b>            | 0.000-0.030 | 0.027        | 0.000-0.030 | 0.002        | 0.000-0.030 | 0.003        |           |              |           |              |
| <b>Cr %</b>           | 16.50-18.50 | 16.74        | 16.00-18.50 | 17.15        | 16.00-18.50 | 17.12        |           |              |           |              |
| <b>Mo %</b>           | 2.00-2.50   | 2.02         | 2.00-3.00   | 2.04         | 2.00-3.00   | 2.05         |           |              |           |              |
| <b>Ni %</b>           | 10.00-13.00 | 10.02        | 10.00-14.00 | 10.16        | 10.00-14.00 | 10.13        |           |              |           |              |
| <b>Cu %</b>           |             |              |             |              |             |              |           |              |           |              |
| <b>B %</b>            |             |              |             |              |             |              |           |              |           |              |
| <b>Al %</b>           |             |              |             |              |             |              |           |              |           |              |
| <b>N %</b>            | 0.00-0.11   | 0.078        |             |              |             |              |           |              |           |              |
| <b>Pb %</b>           |             |              |             |              |             |              |           |              |           |              |

**Mech. properties**

Mechanische Eigensch. / Mecan. prop.

| N | V | Fp | HV | A       | Z       | R <sub>p0.2</sub> | R <sub>m</sub> |
|---|---|----|----|---------|---------|-------------------|----------------|
|   |   |    |    |         |         |                   |                |
|   |   | 41 | 41 |         |         | 140-250           | 145            |
|   |   |    |    | min.20  | 33-40   |                   |                |
|   |   |    |    |         |         |                   |                |
|   |   |    |    | min.350 | 605-645 |                   |                |
|   |   |    |    | 700-850 | 765-785 |                   |                |

**Layer thickness/Schichtdicke**

Epaisseur de couche extérieure

| d (Zn)         |    |   |                   |                   |  |  |
|----------------|----|---|-------------------|-------------------|--|--|
|                |    |   |                   |                   |  |  |
| 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'elasticite      |  |
| F <sub>p</sub> | N  | Proof load / Prüfkraft / charge limite                                | R <sub>m</sub>    | N/mm <sup>2</sup> | Ultimate tensile strength / Zugfestigkeit / resistance a |  |
| HV             | -  | Vickers hardness / Härte Vickers / druete Vickers                     | d (Zn)            | µm                | Mean zinc thickness / mittlere Schicht-dicke Zn /        |  |
| A              | %  | Elongation after fracture / Bruch-dehnung / elongation apres fracture |                   |                   |  |  |