



OLARRA U.K. LTD.
FOREST PARK - CLEOBURY MORTIMER
NR KIDDERMINSTER - DY 14 9BD - ENGLAND

Trade Mark - Zeichen des Lieferwerkes
Anagrama del suministrador 

Works Inspector Stamp - Werkssachverständiger
Sello del Inspector 

| | | | | | |
|---|---------------------|--|---------------|----------------------|-----------------------|
| Certificate type - APZ Nach Certificado tipo | EN 10204/3.1 | Certificate n° - Prüf-Nr Certificado n° | 331660 | Date - Datum - Fecha | 10 - 11 - 2017 |
|---|---------------------|--|---------------|----------------------|-----------------------|

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|--|---------------|----------------------------|---------------|--|---------------|
| Our order N° Werks - Nr N° de Referencia | 620972 | Heat Schmelze Colada | 439224 | Your order N° Bestell - Nr Pedido N° | OL7590 |
|--|---------------|----------------------------|---------------|--|---------------|

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|-------------------------------------|--|---|------------------------|
| Steel Grade Werkstoff Calidad | X-2-CRNIMO-17-12-2 / 1.4404 MECAMAX | According to Entsprechend Corresponde | EN 10.272-2007. |
|-------------------------------------|--|---|------------------------|

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|---|---|----------------------------|----------|-------------------------|---------------------------|----------------|
| Shape and Size - Gegenstad Perfil y dimensión HEXAGON 15,88 mm | Tolerance - Toleranz Tolerancia h11 /DIN 176 /EN 10278 | Bundles Bunde Bultos | 4 | Bars Stäbe Barras | Weight Gewicht Peso | 2149 Kg |
|---|---|----------------------------|----------|-------------------------|---------------------------|----------------|

Requirements - Anforderungen - Exigencias

EN 10.088-3.2014.
ASTM A 276/A 276M-17.
NACE MR-0175/ISO 15156-3 2015.
NACE MR-0103/ISO 17945-2015.
Type 316L.
PED 2014/68/EU, Annex I, Parag.4.3/DGR 2014/68/EU
Anhang I Absatz 4.3 Certificate/Zertifikat Nr. 348/2008/MUC

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| Melting process / Erschmelzungsart / Proceso de Fusión E.A.F. / A.O.D. | Heat treatment / Wärmebehandlung / Tratamiento térmico 1060C 4H/Std WATER/WASSER/AGUA |
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Solution annealed/Abgeschreckt/Hipertemple-Cold drawn/Gezogen/Estirado-

Test results - Ergebnis der Prüfungen - Resultados de los ensayos

| Dimension of Specimen Abmessungen des Probestabes Medida de las probetas | Rp0,2% N/mm2 MPA | Rp 1% N/mm2 MPA | Rm N/mm2 MPA | A %L 5D | A %L 4D | Z % | Hardness Härte HBw | Impact test / Kersbschlag / Resiliencia ISO V Jules |
|--|------------------------------------|-----------------------|--------------------|------------|------------|--------|--------------------------|--|
| RD. 10,00 mm. | Min. | 200 | 235 | 500 | 20 | | | |
| | Max. | | | 900 | | | 315 | |
| Temperature °C 20 | Spec. N° Probe Nr. Pro N°: 1 | 561 | 730 | 758 | 36 | | 229 | |
| | 2 | 563 | 732 | 760 | 35 | | 229 | |

| | C | Si | Mn | P | S | Cr | Mo | Ni | N | Co |
|------|-------|------|------|-------|-------|-------|------|-------|--------|------|
| Min. | | | | | | 16,50 | 2,00 | 10,00 | | |
| Max. | 0,030 | 1,00 | 2,00 | 0,045 | 0,030 | 18,50 | 2,50 | 13,00 | 0,1000 | |
| | 0,026 | 0,31 | 1,63 | 0,035 | 0,027 | 16,55 | 2,01 | 10,00 | 0,0340 | 0,16 |

| | | | | | | |
|--|-------------|---|-------------|--|-------------|--|
| Visual and dimensional inspection Besichtigung und Ausmessung Control visual y dimensional | O.K. | Radioactivity inspection Radioaktivitätskontrolle Control de Radioactividad | O.K. | Antimixing test Spektrosk Verwechslungspr Antimezcla | O.K. | Grain Size Korngröße Tamaño de grano |
|--|-------------|---|-------------|--|-------------|--|

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| Remarks - Bemerkungen - Observaciones IC test acc./IK prüfung nach EN ISO 3651-2/98 Met.A. OK F13975 9/16" x 9/16" JIC SWIV FEM/MALE 15K 316L | EDV / EDP Acc. EN 10.204 Marian Tejado Quality Mng. Works Inspector Der Werkssachverständige Inspector de fábrica |
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We hereby certify that material described herein complies with the requirements agreed on the order.