

Larrondo LOIU (VIZCAYA) España
 P.O. Box 1.323/48080 Bilbao
 Tel. 34-(4) 4 71 13 00
 Fax. 34-(4) 4 53 16 36

Management Systems
 Certified by
LRQA
 ISO 9001 / SGI 6000360
 ISO 14001 / SGI 1870678

ACEROS INOXIDABLES

OLARRA

OLARRA U.K. LTD.
FOREST PARK - CLEOBURY MORTIMER
NR KIDDERMINSTER - DY 149BD - 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° | 201370 | Date - Datum - Fecha | 22 - 07 - 2014 |
|---|--------------|--|--------|----------------------|----------------|

| | | | | | |
|--|--------|----------------------------|--------|--|--------|
| Our order N° Werks - Nr N° de Referencia | 546850 | Heat Schmelze Colada | 374942 | Your order N° Bestell - Nr Pedido N° | OL6326 |
|--|--------|----------------------------|--------|--|--------|

| | | | |
|-------------------------------------|-------------|---|---------------------|
| Steel Grade Werkstoff Calidad | 316-S-11 AV | According to Entsprechend Corresponde | BS 970:PART 3:1991. |
|-------------------------------------|-------------|---|---------------------|

| | | | | | | | |
|---|------------------------------------|----------------------------|---|-------------------------|-----|---------------------------|---------|
| Shape and Size - Gegenstand Perfil y dimensión | Tolerance - Toleranz Tolerancia | Bundles Bunde Bultos | 2 | Bars Stäbe Barras | 143 | Weight Gewicht Peso | 1078 Kg |
| HEXAGON 19,05 mm | h 11 /DIN 176 | | | | | | |

Requirements - Anforderungen - Exigencias

| | |
|--|---|
| EN 10.088-3.2005. EN 10.272-2007. ASTM A 182 / A 182M-13a. ASTM A 479 / A 479M-13b. ASTM A 276-13a. ASME SA 479 / SA 479M-13 SAE AMS 5653H-12. NACE MR-0175-2003/ISO 15156-3 2009. 316S31AV-1.4404-1.4401-Type 316-Type 316L. PED 97/23/EC, Annex I, Paraq.4.3/DGR 97/23/EG | Anhang I Absatz 4.3 Certificate/Zertifikat Nr. 348/2008/MUC |
|--|---|

| | |
|--|--|
| Melting process / Erhmelzungsart / Proceso de Fusión | Heat treatment / Wärmebehandlung / Tratamiento térmico |
| E.A.F. / A.O.D. | 1060C 4H/Std WATER/WASSER/AGUA |

Solution annealed/Abgeschreckt/Hipertempe-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 / Kernschlag / Resiliencia ISO V Jules | |
|--|---------------------------------|-----------------------|--------------------|------------|------------|--------|--------------------------|---|-----|
| RD. 10,00 mm. | Min. | 325 | 375 | 550 | 20 | | | | |
| | Max. | | | | | | | | |
| Temperature °C 20 | Spec. N° Probe Nr. Pro N° | 1 | 446 | 547 | 626 | 38 | 41 | 74 | 207 |

| | C | Si | Mn | P | S | Cr | Mo | Ni | Cu | N | Co |
|------|-------|------|------|-------|-------|-------|------|-------|------|--------|------|
| Min. | | | | | | 16.50 | 2.00 | 11.00 | | | |
| Max. | 0,030 | 1,00 | 2,00 | 0,045 | 0,030 | 18,50 | 2,50 | 14,00 | 0,70 | | |
| | 0,017 | 0,50 | 1,76 | 0,035 | 0,029 | 17,05 | 2,03 | 11,00 | 0,45 | 0,0260 | 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 Spektroskop Verwechslungspr Antimezcla | O.K. | Grain Size Korngröße Tamaño de grano |
|--|------|---|------|--|------|--|

Remarks - Bemerkungen - Observaciones

IC test acc./IK prüfung nach ASTM A 262 E.02. OK
 Crack control/Rissgeprüft acc. EN 10277-1 class 2. OK

FLOW TECHNOLOGY LTD
TEST CERTIFICATE
VERIFIED TRUE
COPY OF ORIGINAL

F9657

3/8" Medium Pressure x 1/4" BSP P Male x Male 20K

EDV / EDP
 Acc. EN 10.204
 Alfredo Molina
 Certification
 Mng.

Works Inspector
 Der Werkssachverständige
 Inspector de fábrica