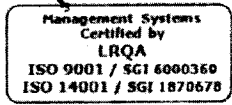


Larrondo LOIU (VIZCAYA) España
P.O. Box 1.323/48080 Bilbao
Tel. 34-(4) 4 71 13 00
Fax.34-(4) 4 53 16 36



ACEROS INOXIDABLES

OLARRA

OLARRA U.K. LTD.
FOREST PARK - CLEOBURY MORTIMER
NR KIDDERMINSTER - DY149BD - 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° | | 179200 | | Date - Datum - Fecha 27 - 01 - 2014 | | | | | | | | | |
| Our order N° Werks - Nr N° de Referencia | | 532430 | | Heat Schmelze Colada | | 366534 | | Your order N° Bestell - Nr Pedido N° | | OL6029 | | | | | | | |
| Steel Grade Werkstoff Calidad | | | | | | 316-S-11 AV | | | | | | According to Entsprechend Corresponde | | BS 970:PART 3:1991. | | | |
| Shape and Size - Gegenstad Perfil y dimensión ROUND 12,7 mm | | | | Tolerance - Toleranz Tolerancia h 9 / DIN 671 / EN 10278 | | | | Bundles Bunde Bultos | | 4 | | Bars Stäbe Barras | | Weight Gewicht Peso | | 2393 Kg | |
| Requirements - Anforderungen - Exigencias | | | | | | | | | | | | Anhang I Absatz 4.3 Certificate/Zertifikat Nr. 348/2008/MUC | | | | | |
| EN 10.088-3.2005. EN 10.272-2007. ASTM A 182 / A 182M-13. ASTM A 479 / A 479M-13a. ASTM A 276-13. ASME SA 479 / SA 479M-13 NACE MR-0175-2003/ISO 15156-3 2009. SAE AMS 5653H-12. 316S31AV-1.4404-1.4401-TP.316L-TP.316. PED 97/23/EC, Annex I, Parag.4.3/DGR 97/23/EG | | | | | | | | | | | | | | | | | |
| Melting process / Erschmelzungsart / Proceso de Fusión | | | | | | Heat treatment / Wärmebehandlung / Tratamiento térmico | | | | | | | | | | | |
| E.A.F. / A.O.D. | | | | | | 1060C 4H/Std WATER/WASSER/AGUA | | | | | | | | | | | |
| Solution anneal/Abgeschreckt/Hipertemple-Cold drawn/Gezogen/Estirado-Polished/Poliert/Pulido- | | | | | | | | | | | | | | | | | |
| Test results - Ergebnis der Prüfungen - Resultados de los ensayos | | | | | | | | | | | | | | | | | |
| Dimension of Specimen Abmessungen des Probestabes Medida de las probetas | | Rp0.2% | Rp 1% | Rm | A | A | Z | Hardness | Impact test / Kerschlag / Resiliencia | | | | | | | | |
| RD. 10,00 mm. | | N/mm2 MPA | N/mm2 MPA | N/mm2 MPA | %L 5D | %L 4D | % | Härte HBw | ISO V Jules | | | | | | | | |
| Min. | | 315 | 425 | 600 | 15 | | | | | | | | | | | | |
| Max. | | | | | | | | | | | | | | | | | |
| Temperature °C 20 | Spec. N° Probe Nr. Pro N° | 1 | 483 | 579 | 646 | 34 | 37 | 73 | 202 | | | | | | | | |
| Min. | C | Si | Mn | P | S | Cr | Mo | Ni | Cu | N | Co | | | | | | |
| Max. | 0,030 | 1,00 | 2,00 | 0,045 | 0,030 | 18,50 | 2,50 | 14,00 | 0,70 | | | | | | | | |
| | 0,021 | 0,54 | 1,75 | 0,036 | 0,028 | 17,15 | 2,01 | 11,10 | 0,40 | 0,0230 | 0,19 | | | | | | |
| Visual and dimensional inspection Besichtigung und Ausmessung Control visual y dimensional | | | Radioactivity inspection Radioaktivitätskontrolle Control de Radioactividad | | | Antimixing test Spektrosk Verwechslungspr Antimezcla | | | Grain Size Korngröße Tamaño de grano | | | | | | | | |
| O.K. | | | O.K. | | | O.K. | | | | | | | | | | | |
| Remarks - Bemerkungen - Observaciones | | | | | | | | | | | | | | | | | |
| IC test acc./IK prüfung nach ASTM A 262 E.02. OK | | | | | | | | | | | | | | | | | |
| F10643 1/4" High Pressure Collar | | | | | | | | | | | | | | | | | |
| EDV / EDP Acc. EN 10.204 Alfredo Molina Certification Mng. Works Inspector Der Werkssachverständige Inspector de fábrica | | | | | | | | | | | | | | | | | |