

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



Quality Management System Approved CERT. N° SC11 6000360

FLOW TECHNOLOGY LTD

TEST CERTIFICATE
VERIFIED TRUE
COPY OF ORIGINAL

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° | | 142249 | | Date - Datum - Fecha 14 - 02 - 2013 | | | | | | | | | |
| Our order N° Werks - Nr N° de Referencia | | 497240 | | Heat Schmelze Colada | | 341651 | | Your order N° Bestell - Nr Pedido N° | | OL 5263 | | | | | | | |
| Steel Grade Werkstoff Calidad | | | | 316-S-11 AV | | | | According to Entsprechend Corresponde | | | | BS 970:PART 3:1991. | | | | | |
| Shape and Size - Gegenstand Perfil y dimensión HEXAGON 15,88 mm | | | | Tolerance - Toleranz Tolerancia h 11 /DIN 176 | | | | Bundles Bunde Bultos | | 5 | | Bars Stäbe Barras | | Weight Gewicht Peso | | 2516 Kg | |
| Requirements - Anforderungen - Exigencias | | | | | | | | | | | | | | | | | |
| EN 10.088-3.2005. EN 10.272-2007. ASTM A 182 / A 182M-12b. ASTM A 479 / A 479M-12. ASTM A 276-10. ASME SA 479 / SA 479M-11a. SAE AMS 5653F-02. NACE MR-0175-2003/ISO 15156-3 2009. 316S31AV-1.4404-1.4401-TP.316L-TP.316. PED 97/23/EC, Annex I, Parag.4.3/DGR 97/23/EG | | | | | | Anhang I Bsatz 4.3 Certificate/Zertifikat Nr. 348/2008/MUC | | | | | | | | | | | |
| Melting process / Erschmelzungsart / Proceso de Fusión E.A.F. / A.O.D. | | | | | | Heat treatment / Wärmebehandlung / Tratamiento térmico 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 / Kerschlag / Resiliencia ISO V Jules | | | | | | | | |
| RD. 10,00 mm. | | Min. | 315 | 425 | 600 | 15 | | | | | | | | | | | |
| | | Max. | | | | | | | | | | | | | | | |
| Temperature °C 20 | Spec. N° Probe Nr. Pro N° | 1 | 580 | 659 | 696 | 38 | | 67 | 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 | | | | | | | | |
| | 0,029 | 0,41 | 1,73 | 0,033 | 0,028 | 17,05 | 2,08 | 11,00 | 0,37 | 0,0210 | 0,13 | | | | | | |
| Visual and dimensional inspection Besichtigung und Ausmessung Control visual y dimensional | | | Radioactivity inspection Radioaktivitätskontrolle Control de Radioactividad | | | Antimixing test Spektroskop 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 Crack control/Rissgeprüft acc. EN 10277-1 class 2. OK F10603 9/16"-18 Male x Male M Type RHP Adaptor 40K 316L | | | | | | | | | | EDV / EDP Acc. EN 10.204 Alfredo Molina Certification Mng. Works Inspector Der Werkssachverständige Inspector de fábrica | | | | | | | |