



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° | | 229307 | | Date - Datum - Fecha 20 - 04 - 2015 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Our order N° Werks - Nr N°deReferencia | | 557512 | | Heat Schmelze Colada | | 390260 | | Your order N° Bestell - Nr Pedido N° | | OL6598 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Steel Grade Werkstoff Calidad | | | | 316-S-11 AV | | | | According to Entsprechend Corresponde | | | | BS 970:PART 3:1991. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Shape and Size - Gegenstad Perfil y dimensión HEXAGON 23,37 mm | | | | Tolerance - Toleranz Tolerancia h 11 /DIN 176 | | | | Bundles Bunde Bultos | | 2 | | Bars Stäbe Barras | | 80 | | Weight Gewicht Peso | | 917 Kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Requirements - Anforderungen - Exigencias | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EN 10.088-3.2005. EN 10.272-2007. ASTM A 182 / A 182M-14a. ASTM A 479 / A 479M-14. 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, Parag.4.3/DGR 97/23/EG | | | | | | Anhang I Absatz 4.3 Certificate/Zertifikat Nr. 348/2008/MUC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <div style="border: 2px solid red; padding: 5px; width: fit-content; margin: auto;"> <p style="text-align: center; color: red; margin: 0;">FLOW TECHNOLOGY LTD</p> <p style="text-align: center; color: red; margin: 0;">TEST CERTIFICATE</p> <p style="text-align: center; color: red; margin: 0;">VERIFIED TRUE</p> <p style="text-align: center; color: red; margin: 0;">COPY OF ORIGINAL</p> </div> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Melting process / Erschmelzungsart / Proceso de Fusión | | | | | | Heat treatment / Wärmebehandlung / Tratamiento térmico | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| E.A.F. / A.O.D. | | | | | | 1060C 4H/Std WATER/WASSER/AGUA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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% | Rp 1% | Rm | A | A | Z | Hardness | Impact test / Kersbschlag / Resiliencia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RD. 10,00 mm. | | N/mm2 MPA | N/mm2 MPA | N/mm2 MPA | %L 5D | %L 4D | % | Härte HBw | ISO V Jules | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Min. | | 325 | 375 | 550 | 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Max. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature°C 20 | | Spec. N° Probe Nr. Pro N°. | 1 | 423 | 516 | 638 | 41 | 44 | 72 | 197 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td></td> <td>C</td> <td>Si</td> <td>Mn</td> <td>P</td> <td>S</td> <td>Cr</td> <td>Mo</td> <td>Ni</td> <td>Cu</td> <td>N</td> <td>Co</td> </tr> <tr> <td>Min.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>16,50</td> <td>2,00</td> <td>11,00</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Max.</td> <td>0,030</td> <td>1,00</td> <td>2,00</td> <td>0,045</td> <td>0,030</td> <td>18,50</td> <td>2,50</td> <td>14,00</td> <td>0,70</td> <td></td> <td></td> </tr> <tr> <td></td> <td>0,021</td> <td>0,41</td> <td>1,79</td> <td>0,034</td> <td>0,028</td> <td>17,05</td> <td>2,02</td> <td>11,00</td> <td>0,57</td> <td>0,0260</td> <td>0,20</td> </tr> </table> | | | | | | | | | | | | | 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 | | | | 0,021 | 0,41 | 1,79 | 0,034 | 0,028 | 17,05 | 2,02 | 11,00 | 0,57 | 0,0260 | 0,20 |
| | 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0,021 | 0,41 | 1,79 | 0,034 | 0,028 | 17,05 | 2,02 | 11,00 | 0,57 | 0,0260 | 0,20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Visual and dimensional inspection Besichtigung und Ausmessung Control visual y dimensional | | | Radioactivity inspection Radioaktivitätskontrolle Control de Radioactividad | | | Antimixing test Spektriosk 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.13. OK Crack control/Rissgeprüft acc. EN 10277-1 class 2. OK | | | | | | | | | | EDV / EDP Acc. EN 10.204 Alfredo Molina Certification Mng. Works Inspector Der Werkssachverständige Inspector de fábrica | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| F14993 9/16" MEDIUM PRESSURE MALE X 3/8" BSPP MALE ADAPTOR 20K 316L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |