



**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 <b>EN 10204/3.1</b>	Certificate nº - Prüf-Nr Certificado nº <b>345257</b>	Date - Datum - Fecha <b>07 - 03 - 2018</b>
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Our order Nº Werks - Nr <b>651070</b> Nº de Referencia	Heat Schmelze <b>450510</b> Colada	Your order Nº Bestell - Nr <b>OL8227</b> Pedido Nº
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Steel Grade Werkstoff <b>316-S-11 AV</b> Calidad	According to Entsprechend <b>BS 970:PART 3:1991.</b> Corresponde
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Shape and Size - Gegenstad Perfil y dimensión <b>ROUND 12,7 mm</b>	Tolerance - Toleranz Tolerancia <b>h 9 /DIN 671 /EN 10278</b>	Bundles Bunde <b>4</b> Bultos	Bars Stäbe Barras	Weight Gewicht <b>2516 Kg</b> Peso
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Requirements - Anforderungen - Exigencias

EN 10.088-3.2014. EN 10.272-2007. ASTM A 182/A 182M-16. ASTM A 479 / A 479M-17. ASME SA 479 / SA 479M-15 ASTM A 276/A 276M-17. ASME SA 276-2015 SAE AMS 5653H-12. NACE MR-0175/ISO 15156-3 2015. NACE MR-0103/ISO 17945-2015.	316S31AV-1.4404-1.4401-Type 316-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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**FLOW TECHNOLOGY LTD**  
**TEST CERTIFICATE**  
**VERIFIED TRUE**  
**COPY OF ORIGINAL**

Melting process / Erschmelzungsart / Proceso de Fusión <b>E.A.F. / A.O.D.</b>	Heat treatment / Wärmebehandlung / Tratamiento térmico <b>1060C 4H/Std WATER/WASSER/AGUA</b>
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**Solution annealed/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 / Kersbschlag / Resiliencia	
	N/mm2	N/mm2	N/mm2	%L 5D	%L 4D	%	Härte	ISO V Jules	
	MPA	MPA	MPA				HBw		
RD. 10,00 mm.	Min.	315	425	600	15				
	Max.								
Temperature °C 20	Spec. Nº. Probe Nr. Pro Nº.	1	525	632	684	34	37	72	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		
	0,021	0,54	1,63	0,035	0,027	17,25	2,00	11,05	0,32	0,0185	0,12

Visual and dimensional inspection Besichtigung und Ausmessung <b>O.K.</b> Control visual y dimensional	Radioactivity inspection Radioaktivitätskontrolle <b>O.K.</b> Control de Radioactividad	Antimixing test Spektrsk Verwechlungspr <b>O.K.</b> Antimezcla	Grain Size Korngrösse <b>5-6 ASTM E-112-13</b> Tamaño de grano
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Remarks - Bemerkungen - Observaciones IC test acc./IK prüfung nach ASTM A 262 E.15. OK No welding or weld repair. Free from mercury or radio-activity contamination.  <b>F14905</b> <b>3/8" MEDIUM PRESSURE PLUG 20K 316L</b>	<b>EDV / EDP</b> <b>Acc. EN 10.204</b> <b>Marian Tejado</b> <b>Quality Mng.</b>  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.