

INSPECTION CERTIFICATE Certificato d'ispezione



REPORT N. Rapporto N.	TC-010356-13-0007	Issued on Emesso il	28/05/2013	Customer Cliente	PROVEEDORA DE MATERIALES ANGER SA DE CV, AV ADOLFO LOPEZ MATEOS 150, COL LAGRANGE, SAN NICOLAS DE LOS GARZA, N.L. - 66490, MEXICO	Job n. Commissa n.	10356	Page n. Pagina n.	7 of 9
Revision Revisione	0	According to In accordo a	EN 10204:2005	Type Tipo	3.1	Purchase order Ordine	301		

DESCRIPTION / DESCRIZIONE						
Test Prova	Item Pos.	Qty Q.tà	Customer code Codice cliente	Material Materiale	Heat Colata	Product Prodotto
VUST	95	98	*	ASTM A105/11	12/72199	90 DEG. ELBOW S. 3000 SW A/SA105N 3
PKXU	104	23	*	ASTM A105/10	P4101045368	TEE S. 3000 SW A/SA105N 2
UIILA	104	42	*	ASTM A105/11	P4111148677	TEE S. 3000 SW A/SA105N 2
UIILA	104	109	*	ASTM A105/11	P4111148677	TEE S. 3000 SW A/SA105N 2
UIXC	104	168	*	ASTM A105/11	P4111148678	TEE S. 3000 SW A/SA105N 2

Test Prova	HEAT TREATMENT DATA AND REFERENCES TO OTHER CERTIFICATES / Dettagli di trattamento termico e riferimenti ad altri certificati					
VUST	MATERIAL PRODUCED BY ELECT.FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /CERT.12668.MEGA/I*591431MEGA					
PKXU	MATERIAL PRODUCED BY ELECT.FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /CERT.11403.MEGA/I*577413MEGA					
UIILA	MATERIAL PRODUCED BY ELECT.FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /CERT.12456.MEGA/I*589312MEGA					
UIILA	MATERIAL PRODUCED BY ELECT.FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /CERT.12456.MEGA/I*589312MEGA					
UIXC	MATERIAL PRODUCED BY ELECT.FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /CERT.12465.MEGA/I*589707MEGA					

Test Prova	Test loc. Preso a	Orient. Direz.	TENSILE TEST / Trazione							CVN (KV) / Prova di resilienza					Bend Piega	Flatten. Schiacc.	Hardness Durezza [HBN]
			Specimen / Provino			Yield strength	Tensile strength	Elongation	Red. Of Area	Dimens.	T	Abs. Energy	Shear A	Lat Exp			
			Shape Forma	A [mm ²] Sezione	L [mm] Lungh.	Snerv. [Mpa] Min:	Rottura [Mpa] Min:	Allung. [%] Min:	Contraz. [%] Min:	Dimens. [mm]	Temp. [°C]	Energia ass. [J]	Area d [%]	Esp. Lat. [mm]			
VUST	T/2	LONG	Round	123,700	50,000	290,200	495,500	32,100	57,200	10x10x55	0	49-50-48	--	--			141-143
PKXU	T/2	LONG	Round	122,700	50,000	326,500	499,500	33,000	62,400	10x10x55	-50	146-128-105	--	--	OK		156-160
UIILA	T/2	LONG	Round	58,500	35,000	263,600	496,200	43,000	68,900	10x10x55	0	126-136-109	--	--			141-143
UIILA	T/2	LONG	Round	58,500	35,000	263,600	496,200	43,000	68,900	10x10x55	0	126-136-109	--	--			141-143
UIXC	T/2	LONG	Round	121,100	50,000	276,400	493,600	37,900	72,800	10x10x55	0	172-135-115	--	--			144-146

Test Prova	C [%]	Si [%]	Mn [%]	S [%]	P [%]	Cr [%]	Ni [%]	Mo [%]	Ti [%]	Cu [%]	V [%]	Al [%]	Co [%]	Nb [%]	N [%]	Sn [%]	W [%]	B [%]	Fe [%]	Zr [%]	CE ^A [%]	PREN ^B [%]	X fact. ^C [%]	J fact. ^D [%]	
VUST	0,1950	0,1800	0,8800	0,0100	0,0150	0,1100	0,0500	0,0100	0,0180	0,1800	0,0150	0,0210		0,0020	0,0112	0,0110						0,3839			
PKXU	0,1900	0,2200	1,1000	0,0040	0,0150	0,1200	0,0150	0,0020		0,0230	0,0060	0,0320		0,0022								0,4014			
UIILA	0,1650	0,2250	1,0700	0,0020	0,0140	0,1600	0,0260	0,0080		0,0470	0,0040	0,0330		0,0030			0,0002					0,3825			
UIILA	0,1650	0,2250	1,0700	0,0020	0,0140	0,1600	0,0260	0,0080		0,0470	0,0040	0,0330		0,0030			0,0002					0,3825			
UIXC	0,1800	0,2150	1,0300	0,0020	0,0150	0,1500	0,0250	0,0100		0,0580	0,0040	0,0280		0,0025			0,0002					0,3899			

REMARKS / Note																							
1: MATERIAL ACCORDING TO NACE MR0175/ISO 15156-1-2-3 Ed.2009												A: CE = C + Mn/6 + (Cr+Mo+V)/5 + (Cu+Ni)/15 B: PREN = Cr + 3.3Mo + 16N C: X factor = (10P + 55b+45n+As)/100 - elements expressed in ppm D: J factor = ((Mn + Si) (P + Sn)) x 104											
Quality control laboratory Laboratorio controllo qualità												Emmanuel Centemeri 											

This certificate is issued by a computerized system and it is valid with electronic signature. On the original certificate the trademark M.E.G.A. is printed in green color.

Form QC-01-01 Rev. 0 2013-03-15