

# M.E.G.A.

CLIENTE  
Customer  
Client

PROVEEDORA DE MATERIALES ANGER  
SA DE CV  
ALFONSO REYES 4030 NTE.  
COL. DEL NTE. MONTERREY, N.L.

CERTIFICATO N° 549085 FOGLIO 1  
Certificato N° Sheet  
Certificat N° Feuille  
DATA / Date 14/04/08

CERTIFICATO DI COLLAUDO  
TEST CERTIFICATE  
CERTIFICAT DE CONTROLE

COMPANY  
WITH QUALITY SYSTEM  
CERTIFIED BY DNV  
ISO 9001

ORDINE  
Purchase order  
Commande 217

COMMESSA 83530  
Job N°  
Confirmation de commande

PROVA Test Epreuve	MATERIALE Steel quality / Matière	COLATA Heat / Coulée	C %	Si %	Mn %	S %	P %	Cr %	Ni %	Mo %	Ti %	Ca %	V %	Al %	CE %
NUBR	ASTM A105/05	06/72863	0.185	0.200	0.950	0.023	0.020	00.11	00.05	0.010	0.000	0.160	0.003	0.019	0.381
			--->	Nb% = 0.001										CEs =	0.343
RLTA	ASTM A105/05	07/76867	0.190	0.180	0.960	0.006	0.008	00.06	00.04	0.010	0.000	0.120	0.016	0.022	0.377
			--->											CEs =	0.350
FXAS	ASTM A105/05	71023	0.190	0.230	0.900	0.005	0.009	00.07	00.05	0.010	0.015	0.180	0.017	0.022	0.374
			--->	Nb% = 0.000	B % = 0.000	Sn% = 0.008								CEs =	0.340
NWNS	ASTM A105/05	06/70497	0.190	0.190	0.890	0.009	0.014	00.10	00.05	0.010	0.000	0.130	0.000	0.020	0.372
			--->	Nb% = 0.000	N % = 0.000									CEs =	0.338
RXTU	ASTM A105/05	48135	0.140	0.210	0.930	0.003	0.010	00.10	00.06	0.010	0.020	0.080	0.003	0.042	0.326
			--->	Nb% = 0.020	B % = 0.0001									CEs =	0.295
RWNT	ASTM A105/05	47853	0.140	0.210	0.950	0.002	0.011	00.09	00.04	0.010	0.000	0.050	0.003	0.000	0.324
			--->	Nb% = 0.001	Sn% = 0.008	B % = 0.0004								CEs =	0.298

PROVA Test Epreuve	PROVETTA Test specimen / Epreuve		SNERVAMENTO Ymin ≥ Yield point Limite d'élasticité	ROTTURA Rmmin ≥ Tensile strength Rupture	ALLUNGAMENTO % ≥ Elongation Allongement	CONTRAZIONE % ≥ Reduction of area Striction	DUREZZA HD Hardness Dureté	PIEGA Bend test Pliage	SCHIACC. Flat test Aplatis.	RESILLENZA Impact test / Résilience			
	SEZIONE Section / Sect.	LUNGHEZZA Length / Longueur								UNITA' MIS. Unit system	TIPO Type	T. °C Test temp	VALORE / Value / Données
NUBR	1	122.6	50.0	307.0	528.0	31.1	68.3	149-152		J	KV	0	48-56-52
RLTA	1	122.6	50.0	321.0	533.0	28.6	67.1	149-159		J	KV	0	54-52-48
FXAS	1	30.1	25.0	328.0	502.0	29.6	65.2	148-156		J	KV	-5	30-40-32
NWNS	1	30.6	25.0	334.0	542.0	28.1	64.1	162-170		J	KV	0	48-52-58
RXTU	1	58.0	35.0	322.4	487.0	30.1	70.1	156-159		J	KV	0	252-260-278
RWNT	1	122.7	50.0	329.2	492.6	30.0	71.2	148-153	OK	J	KV	0	148-156-160

PROVA Test Epreuve NOTE / Remarks / Notes EN10204/3.1 FORMA Shape / Forme : 1 =  2 =

NUBR	ELECT. FURNACE-NORMALIZED AT 920 C COOLED IN STILL AIR. /CERT.230.06 CARLOTTO*536202 MEGA*	
RLTA	ELECT. FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /CERT.1084.CARLOTTO*541882MEGA*	
FXAS	ELECT. FURNACE-NORMALIZED AT 920 C COOLED IN STILL AIR. /CERT.03.05 EVASI*247572 MEGA*	
NWNS	ELECT. FURNACE-NORMALIZED AT 920 C COOLED IN STILL AIR. /CERT.134.06 EVASI*537210 MEGA*	
RXTU	ELECT. FURNACE-NORMALIZED AT 850 C COOLED IN STILL AIR. /CERT.24009/1-5.MANNESMAN*544873MEGA*NDE:OK*	
RWNT	ELECT. FURNACE-NORMALIZED AT 850 C COOLED IN STILL AIR. /CERT.26126.MANNESMAN*NDE:OK*546061MEGA*	

PROVA Test Epreuve	POS. Item Pos.	QUANTITÀ Quantity Quantité	CODICE CLIENTE Customer code Code client	DESCRIZIONE / Description / Description	VISUAL AND DIMENSIONAL
NUBR	014	8		45 DEG. ELBOW S. 3000 NPT A/SA105N 2	OK
RLTA	014	392		45 DEG. ELBOW S. 3000 NPT A/SA105N 2	OK
FXAS	031	370		UNION S. 3000 NPT A/SA105N 1.1/4	male+female OK
NWNS	031	1130		UNION S. 3000 NPT A/SA105N 1.1/4	male+female+n OK
RXTU	045	300		COUPLING S. 3000 NPT A/SA105N 3	OK
RWNT	046	100		COUPLING S. 3000 NPT A/SA105N 4	OK

NOTE / Remarks / Notes

ENTE UFFICIALE DI COLLAUDO  
Inspection Authority  
Service Inspection Officiel

CAPO COLLAUDO  
Chief Inspection Off  
Responsible assurance qualité

MATERIAL ACCORDING TO NACE MR0175/ 2003.

DOC. PART. M.E.G.A.