FORM PMO Rev. 0 15-05-2009

M.E.G.A.

CERTIFICATO DI COLLAUDO
TEST CERTIFICATE
CERTIFICAT DE CONTROLE

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV ISO 9001

CLIENTE / Customer / Client: PROVEEDORA DE MATERIALES ANCER SA DE CV
ALFONSO REYES 4030 NTE.
COL. DEL NTE. MONTERREY. N.L.

CERTIFICATO N. / Certificate N. / Certificat N.: 570971 FOGLIO / Sheet / Feuille
DATA / Date: 08/06/10

ORDINE / Purchase order / Commande: 244

COMMESSA / Job N. / Confirmation de commande: 91349

PROVA Test Epreuve	MATERIALE Material / Matière	COLATA Heat / Coulée	C %	Si %	Mn %	S %	P %	Cr %	Ni %	Mo %	Ti %	Cu %	V %	Al%	CE%
PDWA	ASTM A105/09	192295	0.172	0.206	1.018	0.003	0.010	00.09	00.07	0.010	0.000	0.115	0.001	0.029	0.374
			--->	Nb%=	0.002			Sn%=	0.007					CEs=	0.3417
KDXD	ASTM A105/05	0834829/08	0.190	0.245	1.080	0.002	0.009	00.12	00.01	0.003	0.000	0.024	0.004	0.040	0.397
			--->	Nb%=	0.0029	B %=	0.0001							CEs=	0.370
KTRU	ASTM A105/05	08/76570	0.180	0.220	0.920	0.008	0.012	00.09	00.05	0.010	0.019	0.150	0.017	0.021	0.370
			--->	NB%=	0.001	N %=	0:000	Sn%=	0.009	B %=	0.000			CEs=	0.333
V.TB'L	ASTM A105/05	0834827/08	0.180	0.235	1.090	0.002	0.017	00.11	00.01	0.006	0.000	0.069	0.004	0.035	0.392
			--->	Nb%=	0.0028	B %=	0.000							CEs=	0.361
PADR	ASTM A105/05	0941773/09	0.195	0.215	1.090	0.003	0.009	00.14	00.04	0.010	0.000	0.019	0.003	0.021	0.411
			--->	Nb%=	0.0033									CEs=	0.3767
PRNX	ASTM A105/05	09/78924	0.180	0.220	0.860	0.007	0.013	00.12	00.05	0.010	0.017	0.150	0.019	0.023	0.366
			--->	Nb%=	0.002			Sn%=	0.008					CEs=	0.3233

PROVA Test Epreuve	PROVETTA Test specimen / Eprouvette *	SEZIONE Section / Sect.	LUNGHEZZA Length / Longeur	SNERVAMENTO MPa≥ Yield strength Limite d'elasticité	ROTTURA MPa≥ Tensile strength Rupture	ALLUNGAMENTO % ≥ Elongation Allongement	CONTRAZIONE % ≥ Reduction of area Striction	DUREZZA HB Hardness Dureté	PIEGA Bend test Pliage	SCHIACC. Flatt. test Aplatiss.	RESILIENZA Impact test / Résilience UNITÀ MIS. UM	TIPO Type	T. °C Test temp	VALORE / Value / Données
PDWA	1	30.6	25.0	303.0	522.0	31.5	68.8	143-149			J	KV	0	48-38-42
KDXD	1	122.6	50.0	293.0	501.0	32.0	71.0	137-143			J	KV	0	46-38-40
KTRU	1	122.4	60.0	403.1	595.2	28.6	77.1	168-172			J	KV	0	158-174-180
V.TB'L	1	122.6	50.0	305.0	526.0	32.3	69.5	143-149			J	KV	0	44-42-46
PADR	1	60.1	35.0	327.0	533.0	29.2	67.3	152-159			J	KV	0	48-52-56
PRNX	1	60.1	35.0	307.0	524.0	32.6	69.2	143-149			J	KV	0	42-46-44

* FORMA / Shape / Forme : 1 = ø 2 = □

PROVA Test Epreuve	NOTE / Remarks / Notes EN10204/3.1
PDWA	ELECT.FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /CERT.153.EVASI* MEGA
KDXD	ELECT.FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /.CERT.10077.MEGA/I*553183MEGA*
KTRU	ELECT.FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /CERT.10369.MEGA/I*558757MEGA
V.TB'L	ELECT.FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /CERT.10433.MEGA/I*561044MEGA
PADR	ELECT.FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /CERT.10579.MEGA/I*566724MEGA
PRNX	ELECT.FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /CERT.10709.MEGA/I*568174MEGA

PROVA Test Epreuve	POS. Item Pos.	QUANTITÀ Quantity Quantité	CODICE CLIENTE Customer code Code client	DESCRIZIONE / Description / Description	VISUAL AND DIMENSIONAL
PDWA	055	3600		90 DEG. ELBOW S. 3000 SW A/SA105N 172	OK
KDXD	059	341		90 DEG. ELBOW S. 3000 SW A/SA105N 2	OK
KTRU	059	106		90 DEG. ELBOW S. 3000 SW A/SA105N 2	OK
V.TB'L	059	2787		90 DEG. ELBOW S. 3000 SW A/SA105N 2	OK
PADR	059	999		90 DEG. ELBOW S. 3000 SW A/SA105N 2	OK
PRNX	059	767		90 DEG. ELBOW S. 3000 SW A/SA105N 2	OK

NOTE / Remarks / Notes
MATERIAL ACCORDING TO NACE MR0175/ 2003.

ENTE UFFICIALE DI COLLAUDO / Inspection Authority / Service Inspection Official

CAPO COLLAUDO / Chief Inspection DPT / Responsable assurance qualité

DOC. CERT. M.E.G.A.
Emmanuel Centemeri