

FORM/M/INC Rev. 0 15-05-2008

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

CERTIFICATO N.
 Certificate N. 575961
FOGLIO
 Sheet 1

DATA / Date 24/02/11

COMMESSA
 Job N. 92487
 Confirmation de commande

ORDINE
 Purchase order 246
 Commande

| PROVA Test Epreuve | MATERIALE Material / Matière | COLATA Heat / Coulee | C % | SI % | Mn % | S % | P % | Cr % | Ni % | Mo % | Ti % | Cu % | V % | Al % | CE % |
|--------------------------|---------------------------------|-------------------------|-------|--------|-------|-------|-------|--------|-------|-------|-------|-------|-------|-------|--------|
| PANX | ASTM A105/05 | 08/76308 | 0.185 | 0.210 | 0.870 | 0.010 | 0.012 | 00.09 | 00.07 | 0.010 | 0.017 | 0.180 | 0.016 | 0.024 | 0.369 |
| | | | ---> | Nb % = | 0.000 | | | Sn % = | 0.009 | | | | | CEs = | 0.330 |
| PUWN | ASTM A105/09 | 09/79371 | 0.185 | 0.230 | 0.890 | 0.008 | 0.010 | 00.07 | 00.04 | 0.010 | 0.018 | 0.110 | 0.018 | 0.026 | 0.362 |
| | | | ---> | Nb % = | 0.001 | | | Sn % = | 0.007 | | | | | CEs = | 0.3333 |

| PROVA Test Epreuve | PROVETTA Test specimen / Epreouvette | | SNERVAMENTO MPa _z | ROTTURA MPa _z | ALLUNGAMENTO % ≥ | CONTRAZIONE % ≥ | DUREZZA HB | PIEGA Bend test | SCHIACC. Flat. test | RESILLENZA Impact test / Résilience | | | |
|--------------------------|---|--------------------------------|---------------------------------------|-----------------------------|---------------------------|--------------------------------|--------------------|--------------------|------------------------|--|--------------|--------------------|--------------------------|
| | SEZIONE Section / Sect. | LUNGHEZZA Length / Longueur | Yield strength Limite d'élasticité | Tensile strength Rupture | Elongation Allongement | Reduction of area Striction | Hardness Dureté | Pilage | Apiattiss. | UNITA MIS. UM | TIPO Type | T. °C Test temp | VALORE / Value / Données |
| PANX | 121.5 | 50.0 | 324.1 | 516.0 | 26.4 | 65.5 | 146-149 | | | J | KV | -1 | 156-168-144 |
| PUWN | 61.2 | 35.0 | 297.8 | 492.0 | 31.2 | 66.6 | 138-140 | | | J | KV | 0 | 108-98-96 |

| | | | |
|--------------------------|------------------------|------------------------|---|
| PROVA Test Epreuve | NOTE / Remarks / Notes | FORMA Shape / Forme | 1 = <input type="checkbox"/> 2 = <input type="checkbox"/> |
|--------------------------|------------------------|------------------------|---|

| | |
|------|---|
| PANX | ELECT. FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /CERT.10641.MEGA/I*567583MEGA |
| PUWN | ELECT. FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR. /CERT.11106.MEGA/I*574018MEGA |

| PROVA Test Epreuve | POS. Item Pos. | QUANTITA' Quantity Quantité | CODICE CLIENTE Customer code Code client | DESCRIZIONE / Description / Description | VISUAL AND DIMENSIONAL |
|--------------------------|----------------------|-----------------------------------|--|---|---------------------------|
| PANX | 065 | 322 | 60020 | 90 DEG. ELBOW S. 3000 SW A/SA105N 2 | OK |
| PUWN | 065 | 3678 | 60020 | 90 DEG. ELBOW S. 3000 SW A/SA105N 2 | OK |

| | | |
|------------------------|---|--|
| NOTE / Remarks / Notes | ENTE UFFICIALE DI COLLAUDO Inspection Authority Service Inspection Officiel | CAPO COLLAUDO Chief Inspection DPT Responsable assurance qualité |
|------------------------|---|--|

| | |
|--|---|
| MATERIAL ACCORDING TO NACE MR0175/2003 | DOC. CERT. M.E.G.A. Emmanuel Centemeri |
|--|---|