



Forja Especializada
S.A. de C.V.

CERTIFICADO N° 1156

Av. Puerto de Mazatlan n° 279 Col. La Pastora C.P. 07290 México D.F. Tel. 22272430 fesa@prodigy.net.mx

| Vendido a: | | 62 PLESA ANAHUAC Y CIAS. SA DE CV | | | | | | | con la factura | | | 1156 | | de fecha | | | | 22/06/2011 |
|------------------|--------------------------------------|-----------------------------------|-------|------|------|-------|-------|------|-----------------|-------|----|------|----|----------|--------------------|--|--|------------|
| ANALISIS QUIMICO | | | | | | | | | PRUEBAS FISICAS | | | | | | | | | |
| CANT. | DESCRIPCION | HT | C | SI | MN | P | S | CR | NI | MO | A | B | C | D | NORMA | | | |
| 20 | CODO DE 19 MM X 90° CEDULA 40 | 21102 | 0.16 | 0.25 | 1.1 | 0.008 | 0.001 | 0.03 | 0.03 | 0.01 | 36 | 51 | 27 | 127 | ASTM/ASME A234 WPB | | | |
| 50 | CODO DE 38 MM X 90° CEDULA 40 | 22121 | 0.16 | 0.18 | 0.8 | 0.012 | 0.002 | 0.06 | 0.52 | 0.003 | 40 | 58 | 38 | 130 | ASTM/ASME A234 WPB | | | |
| 30 | CODO DE 51 MM X 90° CEDULA 40 | 31291 | 0.17 | 0.25 | 1.08 | 0.01 | 0.001 | 0.04 | 0.01 | 0.01 | 33 | 51 | 30 | 136 | ASTM/ASME A234 WPB | | | |
| 3 | N. SUAJE DE 51 X 19 MM CEDULA 40 | 31291 | 0.17 | 0.25 | 1.08 | 0.01 | 0.001 | 0.04 | 0.01 | 0.01 | 33 | 51 | 30 | 136 | ASTM/ASME A234 WPB | | | |
| 4 | N. SUAJE DE 51 X 25 MM CEDULA 40 | 31291 | 0.17 | 0.25 | 1.08 | 0.01 | 0.001 | 0.04 | 0.01 | 0.01 | 33 | 51 | 30 | 136 | ASTM/ASME A234 WPB | | | |
| 3 | N. SUAJE DE 51 X 38 MM CEDULA 40 | 31291 | 0.17 | 0.25 | 1.08 | 0.01 | 0.001 | 0.04 | 0.01 | 0.01 | 33 | 51 | 30 | 136 | ASTM/ASME A234 WPB | | | |
| 10 | RED. CONC. DE 102 X 76 MM CEDULA 40 | 31624 | 0.17 | 0.2 | 1 | 0.01 | 0.001 | 0.03 | 0.17 | 0.05 | 35 | 52 | 31 | 138 | ASTM/ASME A234 WPB | | | |
| 20 | RED. CONC. DE 127 X 102 MM CEDULA 80 | 34692 | 0.132 | 0.35 | 1.11 | 0.011 | 0.003 | 0.05 | 0.09 | 0.03 | 40 | 55 | 58 | 154 | ASTM/ASME A234 WPB | | | |
| 30 | RED. CONC. DE 38 X 19 MM CEDULA 40 | 22121 | 0.16 | 0.18 | 0.8 | 0.012 | 0.002 | 0.06 | 0.52 | 0.003 | 40 | 58 | 38 | 130 | ASTM/ASME A234 WPB | | | |

Documento Elaborado por: FORJA ESPECIALIZADA, S.A. DE C.V.

A=Fluencia -Kg/mm2- Mpa - PSI
 B=Resistencia -Kg/mm2- Mpa - PSI
 C= Alargamiento - %
 D= Dureza -BHN-HRB-HRC

Cumple con norma NACE-MR-01-03
 Cumple con norma ASME SA 234 / SA 403
 Dimensiones de acuerdo con ANSI B16.9
 Vanadio < .08% Columbium < .002 %
 Cobre < .040 %

Certificamos que estos materiales han sido fabricados bajo la norma correspondiente , siendo la composicion del material la que reporta el fabricante de la materia prima

CONTROL DE CALIDAD
 ING. JOSE MARIA FERRE SAGARRA