

Test Report for NBS ERW 48.3mm x 3.2mm Scaffold Tube

Report No: MT-14/465-T#1 **Client:** New Bridge Services Export Div (HK)
Report Date: 3-Jul-14 1318-20, 13, Hollywood Plaza
Specimen I.D.: NBSS 48.3 x 3.2 Scaff Tube 9610, Hong Kong
Clients I.D.: Tube Supplier #1
Testing Machine: Sintech 60/D

Conditions: The test data as reported is specific to the properties of ERW tube in accordance with AS 1163 and AS/NZS 1576.1. MTS shall therefore take no responsibility for properties of the tube other than those specifically reported herein.

TEST DETAILS

Test Date: **June 27th 2014**
 Extensometer Gauge Length: L_e (mm) **50.00**

TENSILE SPECIMEN DETAILS

| | | | | |
|------------------|-------|--------------------|-------|------------------------------------------------------|
| Width: | b | (mm) | 12.62 | <i>AS 1163 C450 Tensile Requirements</i> |
| Thickness: | a | (mm) | 3.09 | |
| Area: | S_o | (mm ²) | 39.00 | |
| Gauge Length: | L_o | (mm) | 35.00 | |
| Parallel Length: | L_c | (mm) | 77.00 | |

Tube Geometry

| | | |
|------------|------|------|
| d_o (mm) | 48.6 | Pass |
| t (mm) | 3.1 | Pass |
| o (%) | 0.72 | Pass |

Coating Thickness

| | | |
|--------------------------|-----|------|
| Ct (g/m ²) | 514 | Pass |
|--------------------------|-----|------|

TENSILE PROPERTIES

| | | | | |
|---------------------------|------------|-------|-----|-----|
| Tensile Strength: | R_m | (MPa) | 598 | 500 |
| Proof Stress: | $R_{p0.2}$ | (MPa) | 490 | 450 |
| Post Fracture Elongation: | A | (%) | 17 | 14 |

FLATTENING TEST

Observations: *The test piece did not crack, fracture or show any sign of failure upon flattening to 75% of d_o and therefore passed the test.*

Test Comments:

Tested in accordance with AS 1391-2007 and AS 1163-2009. The mechanical properties for the 48.3mm x 3.2mm Circular Hollow Section tube meet the requirements for AS 1163 C450 Grade tube. The scaffold tube as tested and reported herein exceeds the requirements of AS/NZS 1576.1 whereby the minimum allowable yield strength for ERW tube is 250MPa. Tensile tests covered by MTS scope of nata accreditation. Geometry and coating thickness tests not covered by scope of accreditation.



Rod Wilkie

Authorised Signatory

