

# Test Report Sheet



**Test No**            **NA5073/01**  
 Approval - WICS: MTBA200X32 Trials (5712)

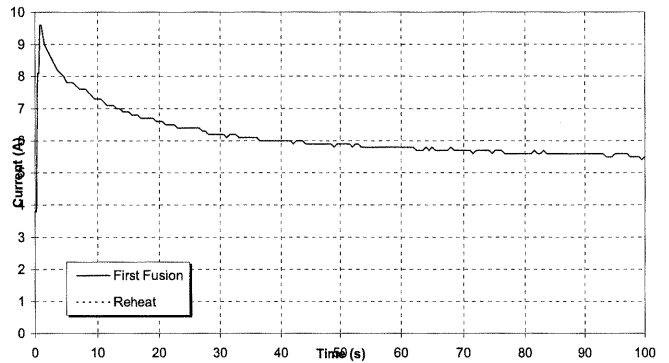
**Test**                **Long Term Hydrostatic Strength at 20 C**  
 WIS 4-32-14. March 1995.: Clause 7.3, March 1995.  
 Test temperature: 20.0 C Test pressure: 19.0 Bar

**Fitting**            **Multi-Seal Tapping Tee u/s 200x 32 mm black PE100**  
 Production Run:

**Pipe**                **Resin: PE80 SDR: 11**

**Jointing Cond.**    **C2 (Pipe: -5.0 C, Fitting: 23.0 C, Applied power: Minimum)**

**Jointing**            Declared voltage (Vd): 39.0 V  
 Measured fitting temp.: 23.0 C  
 Measured resistance (Rm): 3.970 Ohm  
 Max. decl. resistance (Rd): 4.055 Ohm  
 App. volt. (Vd\*SQR(Rm/Rd)): 38.6 V  
 Fusion time: 100 s  
 Input energy: 23.7 kJ



Date On Test	Date Off Test	Accrued Hours	Failure Mode	Gas Tested	Test Result
04-Dec-00	31-Jan-02	10096.82			Pass
Comments					

S. Dudley

Joint date: 22-Sep-00

Signed By:

Date Completed:

# Test Report Sheet



**Test No**

**NA5814/01**

Quality Control: CBKHA63D 3rd run in production (7295)

**Test**

**Joint Cohesion (Crush)**

EN 1555 (Gas): Part 3 Table 4 (ISO/DIS 13954:13955:13956)

Test temperature: 20.0 C Test pressure: n/a

**Fitting**

**Coupler 63 mm black PE100**

Production Run: 0602286 Fitting no: 1397

**Pipe**

**Resin: PE80 SDR: 11**

**Jointing Cond.**

**MIN-10 (Pipe: -10.0 C, Fitting: -10.0 C, Applied power: Minimum)**

**Jointing**

Declared voltage (Vd): 39.0 V

Measured fitting temp.: 22.0 C

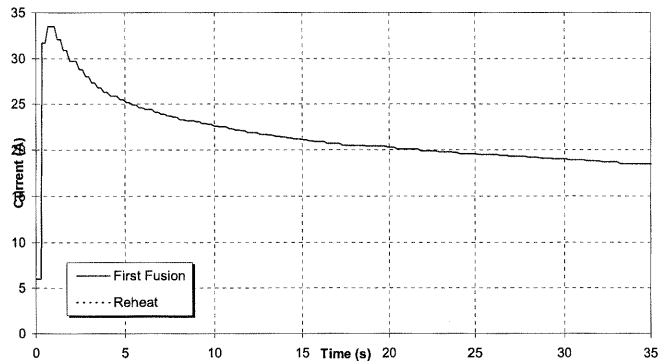
Measured resistance (Rm): 0.894 Ohm

Max. decl. resistance (Rd): 0.985 Ohm

App. volt. (Vd\*SQR(Rm/Rd)): 37.2 V

Fusion time: 35 s

Input energy: 28.1 kJ



**Remarks**

No signs of brittleness through joint. NB tested on PE80 pipe.

**Test Result**

Pass

I. McKeown

Joint date: 04-Jul-02

Signed By:

Date Completed:

TL6

Issue 3

# Test Report Sheet



**Test No**            **NA5830/07**  
 Approval - Gas Natural: RBKHM 110x90 Thin wall (7349)

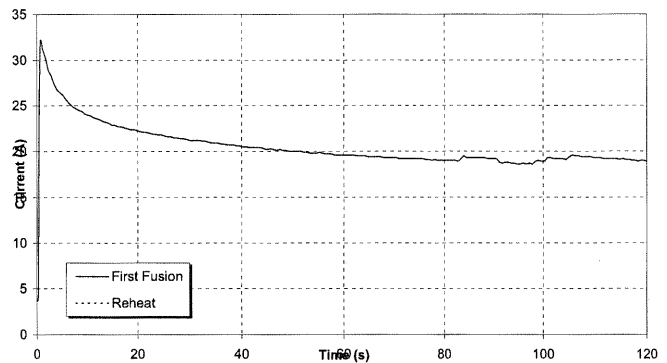
**Test**                **Hydrostatic strength at 20 C (100 hrs)**  
 EN 1555 (Gas): Part 3 Table 4 (EN 921)  
 Test temperature: 20.0 C Test pressure: 20 Bar

**Fitting**            **Reducer e/f 110x 90 mm black PE100**  
 Production Run:

**Pipe**                **Resin: PE80 SDR: 11**

**Jointing Cond.**    **MIN-10 (Pipe: -10.0 C, Fitting: -10.0 C, Applied power: Minimum)**

**Jointing**            Declared voltage (Vd): 39.0 V  
 Measured fitting temp.: 23.0 C  
 Measured resistance (Rm): 1.110 Ohm  
 Max. decl. resistance (Rd): 1.214 Ohm  
 App. volt. (Vd\*SQR(Rm/Rd)): 37.3 V  
 Fusion time: 120 s  
 Input energy: 91.6 kJ



Date On Test	Date Off Test	Accrued Hours	Failure Mode	Gas Tested	Test Result
12-Sep-02	19-Sep-02	148			Pass
Comments					

N. Allman

Joint date: 12-Sep-02

Signed By:

Date Completed:

# Test Report Sheet



**Test No**

**NA6133/08**

Quality Control: RBKHA63x40 G Test 1st run wk 21 (8687)

**Test**

**Joint Cohesion (crush)**

EN 12201 (Water): Part 3 Table 4 (ISO/DIS 13954:13955:13956)

Test temperature: 23.0 C Test pressure: n/a

**Fitting**

**Reducer e/f 63x 40 mm black PE100**

Production Run: 0504215 Fitting no: 270

**Pipe**

**Resin: PE80 SDR: 11**

**Jointing Cond.**

**MIN-10 (Pipe: -10.0 C, Fitting: -10.0 C, Applied power: Minimum)**

**Jointing**

Declared voltage (Vd): 39.0 V

Measured fitting temp.: 25.0 C

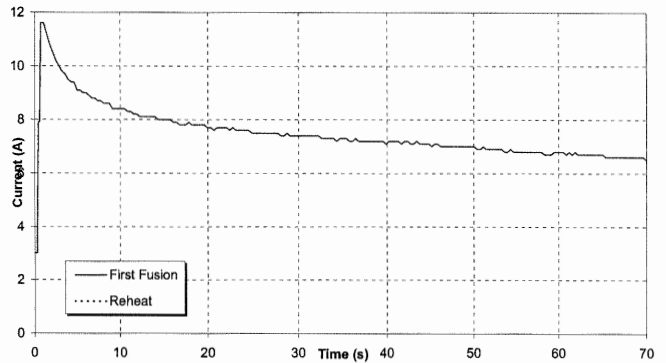
Measured resistance (Rm): 2.890 Ohm

Max. decl. resistance (Rd): 3.116 Ohm

App. volt. (Vd\*SQR(Rm/Rd)): 37.6 V

Fusion time: 70 s

Input energy: 19.6 kJ



No sign of brittleness on fitting interface

**Remarks**

**Test Result**  
Pass

C. Brecker

Joint date: 25-May-04

Signed By:

Date Completed:

TL6

Issue 3

# Test Report Sheet



**Test No** **PC023010**  
Process Control - Normal (Week: 30/02) (7355)

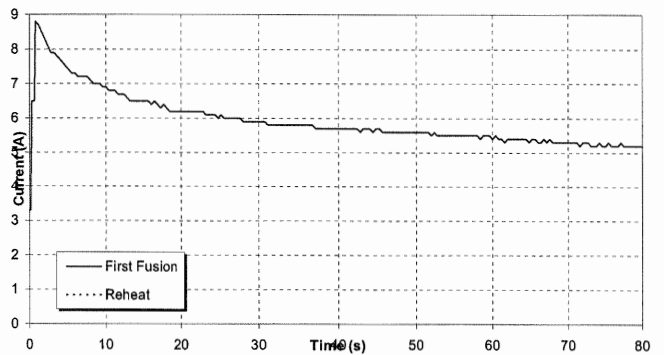
**Test** **Joint Cohesion (crush)**  
EN 12201 (Water): Part 3 Table 4 (ISO/DIS 13954:13955:13956)  
Test temperature: 23.0 C Test pressure: n/a

**Fitting** **Equal tee 63x 63x 63 mm black PE100**  
Production Run: 0702985 Fitting no: 24

**Pipe** **Resin: PE80 SDR: 11**

**Jointing Cond.** **MIN-10 (Pipe: -10.0 C, Fitting: -10.0 C, Applied power: Minimum)**

**Jointing**  
Declared voltage (Vd): 39.0 V  
Measured fitting temp.: 23.0 C  
Measured resistance (Rm): 4.030 Ohm  
Max. decl. resistance (Rd): 4.055 Ohm  
App. volt. (Vd\*SQR(Rm/Rd)): 38.9 V  
Fusion time: 80 s  
Input energy: 18.3 kJ



no signs of brittleness

**Remarks**

**Test Result**  
Pass

J. Wilson

Joint date: 08-Aug-02

Signed By:

Date Completed:

TL6

Issue 3

# Test Report Sheet



**Test No**            **PC023905**  
 Process Control - Normal (Week: 39/02) (7497)

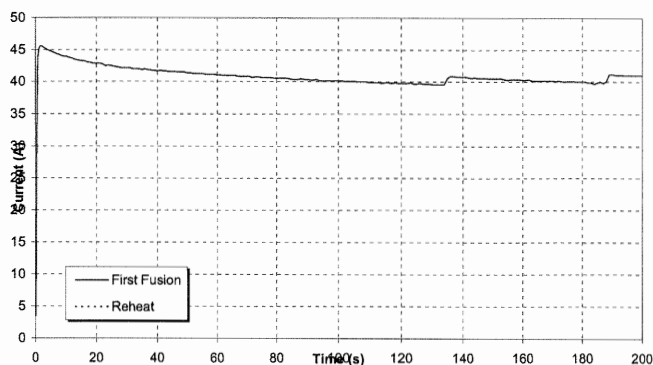
**Test**                **Hydrostatic strength at 80 C (165 hrs)**  
 EN 12201 (Water): Part 3 Table 4 (EN921, ISO 1167)  
 Test temperature: 80.0 C Test pressure: 9.0 Bar

**Fitting**            **Elbow 160 mm x 90 deg black PE100**  
 Production Run: 0902420 Fitting no: 179

**Pipe**                **Resin: PE80 SDR: 11**

**Jointing Cond.**    **MIN-10 (Pipe: -10.0 C, Fitting: -10.0 C, Applied power: Minimum)**

**Jointing**            Declared voltage (Vd): 39.0 V  
 Measured fitting temp.: 23.0 C  
 Measured resistance (Rm): 0.869 Ohm  
 Max. decl. resistance (Rd): 0.886 Ohm  
 App. volt. (Vd\*SQR(Rm/Rd)): 38.6 V  
 Fusion time: 200 s  
 Input energy: 309.1 kJ



Date On Test	Date Off Test	Accrued Hours	Failure Mode	Gas Tested	Test Result
04-Oct-02	15-Oct-02	191			Pass
Comments					

J. Wilson

Joint date: 03-Oct-02

Signed By:

Date Completed:

TL6

# Test Report Sheet



**Test No**            **PC065101**  
 Process Control - Normal (Week: 51/06) (10893)

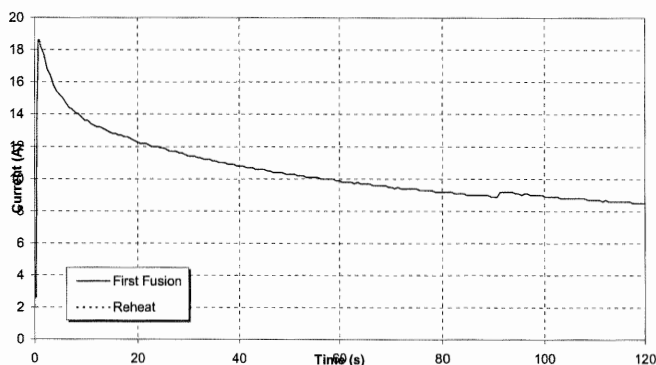
**Test**                **Hydrostatic strength at 80 C (165 hrs)**  
 EN 12201 (Water): Part 3 Table 4 (EN921, ISO 1167)  
 Test temperature: 80.0 C Test pressure: 9.0 Bar

**Fitting**            **Branch saddle u/s 250x 90 mm black PE100**  
 Production Run: 1206217 Fitting no: 61

**Pipe**                **Resin: PE80 SDR: 11**

**Jointing Cond.**    **MIN-10 (Pipe: -10.0 C, Fitting: -10.0 C, Applied power: Minimum)**

**Jointing**            Declared voltage (Vd): 39.0 V  
 Measured fitting temp.: 23.0 C  
 Measured resistance (Rm): 1.990 Ohm  
 Max. decl. resistance (Rd): 2.099 Ohm  
 App. volt. (Vd\*SQR(Rm/Rd)): 38.0 V  
 Fusion time: 120 s  
 Input energy: 47.4 kJ



Date On Test	Date Off Test	Accrued Hours	Failure Mode	Gas Tested	Test Result
05-Jan-07	22-Jan-07	318			Pass
Comments					

C. Brecker

Joint date: 05-Jan-07

Signed By:

Date Completed: