

REPORT ON PERFORMANCE TESTS OF WATER CLOSET CONNECTOR

Client : East Wind Products Ltd.

Project : Testing of uPVC Connector

Client Ref. : EW080921

Report No. : 214521ST210562



Date : 04 November 2021

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1.0 Introduction

Fugro Technical Services Limited, was commissioned by the client, East Wind Products Ltd. to conduct a series of tests on trap in accordance with BS5627 : 1984.

The test samples given a code number ST210562 were received by Fugro Technical Services Limited 08 September 2021.

2.0 Sample Description

For all test W.C. Connector

Brand Name : POSEIDON

Manufacturing Factory : --

3.0 Summary of Test Results

| Sample Description | Test Item | Test method | Test Results | Remark |
|--------------------|--|---|--|--------|
| W.C. Connector | Stress Relief Behaviour of Mould Fitting | BS 5627 : 1984, Clause 7a.3 and BS 2782 : Method 1103A | No blister, delamination, crack and weldline splitting | Pass |
| | Vicat Softening Temperature of Thermoplastic | BS 5627 : 1984, Clause 7a.3 Method 120B of BS 2782 : Method 120A to 120E : 1976 | 80.6 °C | Pass |
| | Air-Tightness Test | BS 5627 : 1984, Clause 9.2 and Appendix F | No loss of pressure | Pass |
| | Water-Tightness Test | BS 5627 : 1984, Clause 9.1 and Appendix E | No visible leakage | Pass |
| | Water and Air Tightness Under Deflection | In-house method T-T-289, BS 5627 : 1984 Clause 9.3 | No loss of pressure | Pass |

Remark : The test results relate only to the samples tested.

Checked by : 

Certified by : 

Chan Chun Wai Ivan
Manager (Product Testing Laboratory)

Date : 04 NOV 2021

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4.0 Individual Results

Test Results for Water Closet Pan Connector

Sample Description : W.C. Connector

Product Type : uPVC Fitting

Brand Name : POSEIDON

Body Marking : --

Country of Origin : China

Manufacturer : --

4.1 Stress Relief Behaviour of Mould Fitting

(BS 5627 : 1984, Clause 7a.3 and BS 2782 : Method 1103A)

Lab Sample I.D. : ST210562/3

Date Tested : 20 September 2021

| Sample Type | Test Temperature (°C) | Time Maintained (Min) | Observation | BS Requirement |
|-------------|-----------------------|-----------------------|--|--|
| Fitting | 150 | 30 | <p>No blister, delaminations, cracks or weld line splitting.</p> <p>Crack penetration in the area of injection point(s) not greater than 50% of the wall thickness of that point.</p> <p>Crack penetration in the area of end gating not greater than 25% of the corresponding socket depth.</p> | No blister, delamination, crack and weldline splitting |

Remark : The test results **comply** with the requirement of BS5627 : 1984, Clause 7a.3



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4.2 Vicat Softening Temperature of Thermoplastic

(BS 5627 : 1984, Clause 7a.3 Method 120B of BS 2782 : Method 120A to 120E : 1976)

Lab Sample I.D. : ST210562/1-2
Date Tested : 28 September 2021
Heating Rate : 50 °C/h

| Test Mass (kg) | Test Liquid | Sample Thickness (mm) | Reading of dial gauge (div) | | The indenting tip has penetrated into the test specimen (mm) | Temperature (°C) | BS Requirement |
|----------------|-------------|-----------------------|-----------------------------|-------|--|------------------|----------------|
| | | | Before | After | | | |
| 5 | water | 3.58 | 300 | 200 | 1.0 | 80.4 | ≥80°C |
| | | 3.56 | 312 | 212 | 1.0 | 80.8 | |
| | | | | | Average | 80.6 | |

Remark : The test results **comply** with the requirement of BS 5627 : 1984, Clause 7a.3

4.3 Air-Tightness Test

(BS 5627 : 1984, Clause 9.2 and Appendix F)

Lab Sample I.D. : ST210562/4
Date Tested : 11 October 2021

| Test Air Pressure (bar) | Time Maintained | Observation | BS Requirement |
|-------------------------|-----------------|---------------------|---------------------|
| 0.005 | 5 mins | No loss of pressure | No loss of pressure |

Remark : The test results **comply** with the requirement of BS 5627 : 1984, Clause 9.2

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4.4 Water-Tightness Test

(BS5627 : 1984, Clause 9.1 and Appendix E)

Lab Sample I.D. : ST210562/4

Date Tested : 11 October 2021

| Sample Type | Test Pressure (bar) | Time Maintained (Min) | Observation | BS Requirement |
|-------------|---------------------|-----------------------|--------------------|----------------|
| Fitting | 0.1 | 5 | No visible leakage | No leakage |

Remark : The test results **comply** with the requirement of BS 5627 : 1984, Clause 9.1

4.5 Water and Air Tightness Under Deflection

(In-house method T-T-289, BS 5627 : 1984, Clause 9.3)

Lab Sample I.D. : ST210562/4

Date Tested : 11 October 2021

| For Water-Tightness Test | | | BS Requirement |
|---------------------------|-----------------------|---------------------|---------------------|
| Test Water Pressure (bar) | Test Maintained (min) | Observation | |
| 0.1 | 5 | No leakage | No loss of pressure |
| | | | |
| For Air-Tightness Test | | | BS Requirement |
| Test Water Pressure (bar) | Test Maintained (min) | Observation | |
| 0.005 | 5 | No loss of pressure | No loss of pressure |


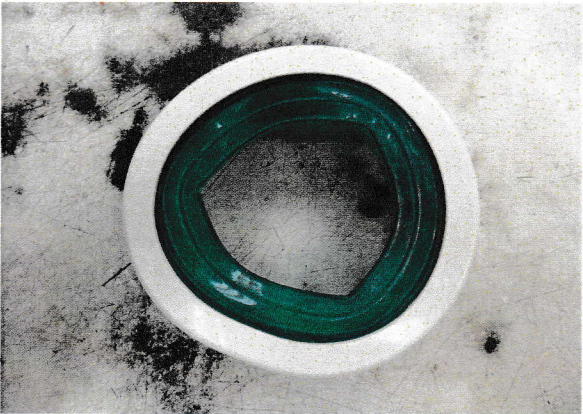
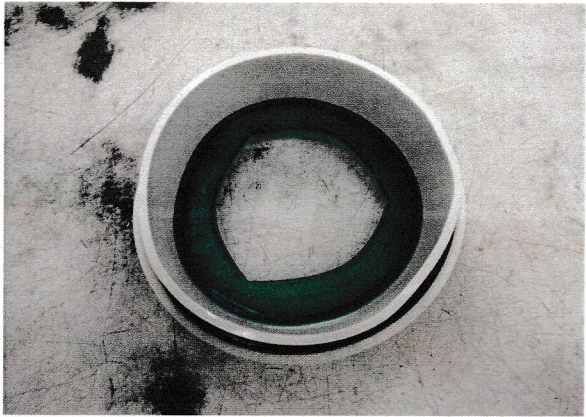
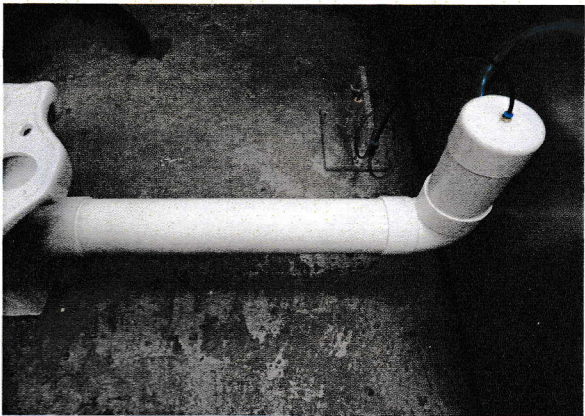
Remark : The test results **comply** with the requirement of BS 5627 : 1984, Clause 9.3

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5.0 Record Photographs

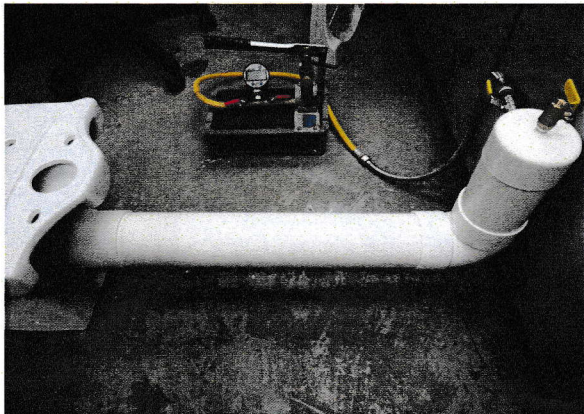
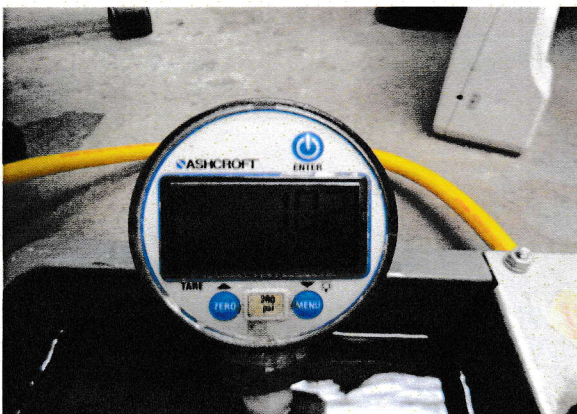
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| <p>Sample After Test Sample I.D.: ST210562/3</p> | <p>Sample After Test Sample I.D.: ST210562/3</p> |
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| <p>Sample After Test Sample I.D.: ST210562/3</p> | <p>Test Configuration Sample I.D.: ST210562/4</p> |


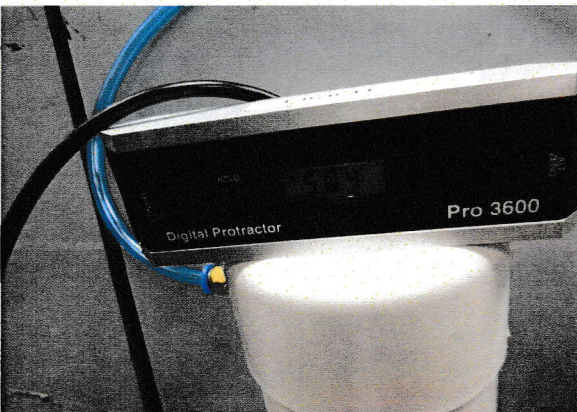
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|---|--|
|  |  |
| <p>Sample After Test Sample I.D.: ST210562/4</p> | <p>Sample After Test Sample I.D.: ST210562/4</p> |

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|---|--|
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| <p>Sample After Test Sample I.D.: ST210562/4</p> | <p>Sample After Test Sample I.D.: ST210562/4</p> |

****End of Report****

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