

## Auditing Test Report

Test Report No.: SA13-4043/27

Date: 10/01/2024

### Client

Saudi Vitrified Clay Pipe Co.  
P.O. Box 6415  
Riyadh 11442  
Kingdom of Saudi Arabia

Sampling Date: 06/01/2024

Test Date: 07/01/2024

### Auditing Purpose:

Testing of Vitrified Clay Pipes jointed by system C according to EN 295-1:2013

### Size Description:

Nominal Size: DN 250 \* 2000 mm  
Jointing System: System C  
Class: 240 - Class A

### Description of Sampling

Samples were collected randomly from the stock at the client's manufacturing works in Riyadh (Kingdom of Saudi Arabia) by the agent of the Suhaimi - Fugro

### Underlying specification /description of the tests

EN 295-1:2013 "Vitrified clay pipe systems for drains and sewers - Part 1: Requirements for pipes, fittings & joints"  
GSO EN 295-1:2008 "Vitrified clay pipe systems for drains and sewers - Part 1: Requirements for pipes, fittings & joints"  
EN 295-2:2013 "Vitrified clay pipe systems for drains and sewers - Part 2: Evaluation of conformity and sampling"  
EN 295-3:2012 "Vitrified clay pipe systems for drains and sewers - Part 3: Test Methods"



**Test Results of DN 250 ES - Class A**

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| Test Type        |   | Unit             | Sample 1  | Sample 2 | Sample 3 | Req.                               | Result |   |
|------------------|---|------------------|---|----------|----------|------------------------------------|--------|---|
| Pipes            | Marking (visual Inspection)             | -                | ✓   | ✓        | ✓        | ✓                                  | ✓      |   |
|                  | Crushing Strength                       | KN/m             | 85  | 79       | 85       | ≥ 60                               | ✓      |   |
|                  | Internal Barrel Diameter "D1"           | mm               | 251   | 248      | 253      | ≥ 244                              | ✓      |   |
|                  | Length                                  | mm               | 2005  | 2010     | 2005     | 2000 <sup>+4%</sup> <sub>-1%</sub> | ✓      |   |
|                  | Water Tightness                         | L/m <sup>2</sup> | 0.018   | 0.01     | 0.02     | ≤ 0.04                             | ✓      |   |
|                  | Deviation from Straightness             | mm               | 0.9   | 1.2      | 1.1      | < 4.0                              | ✓      |   |
|                  | Squareness of Ends                      | Socket           | mm  | 2.6      | 2.5      | 3.1                                | < 6.0  | ✓ |
|                  |   | Spigot           | mm  | 2.6      | 2.6      | 2.2                                |        |   |
|                  | Airtightness                            | mm               | 5   | 10       | 10       | Drops ≤ 25                         | ✓      |   |
|                  | Chemical Resistance                     | %                | 0.14  | 0.12     | 0.13     | 0.10-0.25%                         | ✓      |   |
| Water Absorption | %                                       | 3.4              | 3.2   | 3.5      | ≤ 6 %    | ✓                                  |        |   |
| Joint Assembly   | Joint Interchangeability (D4)           | mm               | 341.9   | 341.7    | 341.8    | 341.5 ± 0.5                        | ✓      |   |
|                  | Watertightness under Angular Deflection | 0.5 bar          | No leak, Deflection applied is 30 mm/m for 5 min.   |          |          | No visible leakage                 | ✓      |   |
|                  | Watertightness under Shear              | 0.5 bar          | No leak, Shear force applied is 6.25 KN for 15 min. |          |          | No visible leakage                 | ✓      |   |
|                  | Continuity of Invert                    | mm               | 3.2   | 2.6      | 3.2      | ≤ 4                                | ✓      |   |

FUGRO - SUHAIMI LTD

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