

## Auditing Test Report

Test Report No. 258816/34

Date: 21/07/2024

### Client

Saudi Vitriified Clay Pipe Co.

P.O. Box 6415

Riyadh 11442

Kingdom of Saudi Arabia

Sampling Date: 17/07/2024

Test Date: 18/07/2024

### Auditing Purpose:

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

### Size Description:

Nominal Size: DN 600 \* 2000 mm

Jointing System: System C

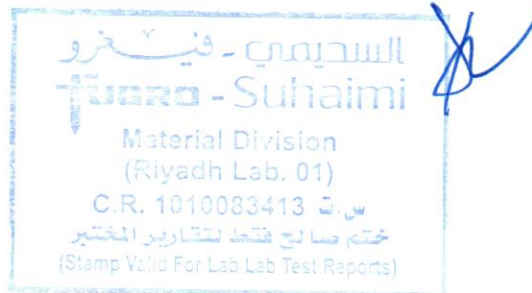
Class: 160 - Class A

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



Test Results of DN 600 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                        | 119     | 125   | 120      | ≥ 96                                | ✓                  |        |
| Internal Barrel Diameter "D1" |   | mm                          | 605     | 602   | 605      | ≥ 585                               | ✓                  |        |
| Length                        |   | mm                          | 2000    | 2010  | 2010     | 2000 <sup>+4%</sup> <sub>-.1%</sub> | ✓                  |        |
| Water Tightness               |   | L/m <sup>2</sup>            | 0.02    | 0.03  | 0.02     | ≤ 0.04                              | ✓                  |        |
| Deviation from Straightness   |   | mm                          | 0.9     | 0.5   | 0.6      | < 3.0                               | ✓                  |        |
| Squareness of Ends            |   | Socket                      | mm      | 6.2   | 6.8      | 6.6                                 | < 12.0             | ✓      |
|                               |   | Spigot                      | mm      | 6.2   | 5.6      | 6.7                                 |                    |        |
| Airtightness                  |   | mm                          | 15      | 20  | 15       | Drops ≤ 25                          | ✓                  |        |
| Chemical Resistance           |   | %                           | 0.15    | 0.19  | 0.15     | 0.10-0.25%                          | ✓                  |        |
| Water Absorption              |   | %                           | 5.3     | 5.3   | 5.2      | ≤ 6 %                               | ✓                  |        |
| Joint Assembly                | Joint Interchangeability (D4)           |                             | mm      | 758.3   | 758.3    | 758.4                               | 758 ± 0.5          | ✓      |
|                               | Watertightness under Angular Deflection |                             | 0.5 bar | No leak, Deflection applied is 20 mm/m for 5 min.   |          |                                     | No visible leakage | ✓      |
|                               | Watertightness under Shear              |                             | 0.5 bar | No leak, Shear force applied is 15.0 KN for 15 min. |          |                                     | No visible leakage | ✓      |
|                               | Continuity of Invert                    |                             | mm      | 3.6   | 3.7      | 3.9                                 | ≤ 6.0              | ✓      |

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