

Auditing Test Report

Date: 12/7/2017

No. : 40155-8

Client

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

Sampling Date:

10/7/2017

Testing Date:

11/7/2017

Auditing Purpose:

Testing of Perforated Vitrified Clay Pipes jointed by system C according to EN 295-5:2013

Size Description:

Nominal Size: **DN 400 * 2000 mm Locally Perforated**
Jointing System: **System C**
Class: **120**

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" |
| EN 295-5:2013 | "Vitrified clay pipe systems for drains and sewers - Part 5: Requirements for pipes & fittings" |
| 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

| | Test Type | Unit | Sample 1 | Sample 2 | Sample 3 | Req. | Result |
|-----------------------|-------------------------------|--------------------|---|----------|----------|------------------------------------|--------|
| Pipes | Marking (visual Inspection) | - | ✓ | ✓ | ✓ | ✓ | ✓ |
| | Crushing Strength | KN/m | 69.1 | 66.8 | 62 | ≥ 48 | ✓ |
| | Internal Barrel Diameter "D1" | mm | 409 | 406 | 398 | ≥ 390 | ✓ |
| | Length | mm | 2010 | 2010 | 2010 | 2000 ^{+5%} _{-2%} | ✓ |
| | Deviation from Straightness | mm | 2.4 | 2.2 | 1.5 | < 4.0 | ✓ |
| | Perforation Area | mm ² /m | 13133.8 | | | ≥ 1200 | ✓ |
| | Water Absorption | % | 5.1 | 4.2 | 4.7 | ≤ 6 % | ✓ |
| Joint Assembly | Joint Interchangeability | mm | 483.3 | 483.6 | 483.7 | 483.5 ± 0.5 | ✓ |
| | Continuity of Invert | mm | 2.7 | 2.7 | 2.5 | ≤ 4 | ✓ |
| | Chemical Resistant | % loss | 0.18% & 0.20%, Two test pieces have been immersed totally in 500 ml of H ₂ SO ₄ & NaOH solutions for 48 h at a temperature of (20 ± 5) °C | | | 0.1% to 0.25% | ✓ |

FUGRO - SUHAIMI LTD

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