

Auditing Test Report

Test Report No.: SA13-4043/19

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 F according to EN 295-1:2013

Size Description:

Nominal Size: DN 100 * 1000 mm

Jointing System: System F

Class: 34 KN/m

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"
WN ZP 295:2022	"Glazed vitrified clay pipes, fittings and their accessories for drains and sewers"
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 100 mm

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	Test Type		Unit	Sample 1	Sample 2	Sample 3	Req.	Result
	Pipes	Marking/Visual Inspection		-	✓	✓	✓	✓
Crushing Strength		KN/m	51	52	49	≥ 34	✓	
Internal Barrel Diameter "D1"		mm	103	102	102	≥ 96	✓	
Length		mm	1010	1010	1015	1000 ^{+4%} _{-1%}	✓	
Water Tightness		L/m ²	0.025	0.02	0.03	≤ 0.04	✓	
Deviation from Straightness		mm	4.2	3.4	3.2	< 5.0	✓	
Squareness of Ends		Socket	mm	2.2	1.8	2.1	< 6.0	✓
		Spigot	mm	2.3	2.3	1.7		
Airtightness		mm	5	5	10	Drops ≤ 25	✓	
Chemical Resistance		%	0.15	0.12	0.17	0.10-0.25%	✓	
Water Absorption		%	1.7	1.7	2.1	≤ 6%	✓	
Joint Assembly	Joint Interchangeability (D3)		mm	130.8	131.2	131.1	131 ± 1.5	✓
	Watertightness under Deflection		0.5 bar	No leak, for 5 minutes under Deflection of 100 mm/m			No visible leakage	✓
	Watertightness under shear			No leak, for 15 minutes under shear load of 2.5 KN				✓
	Watertightness of joint assembly		1.0 bar	No leak, for 15 minutes without shear or deflection				✓
			2.4 bar					✓
Continuity of Invert		mm	N/A			N/A	✓	

FUGRO - SUHAIMI LTD

Mohammad Afaq

