



*Don't Build it.
Print it.*

QOROX is New Zealand's pioneer in printed structures, expanding the horizon of the construction industry by pushing dimensions and limits.

Leading printed structures

QOROX utilises additive manufacturing to create printed structures and features. It's 75% faster and reduces waste by 70% when compared to traditional construction.

QOROX supplies the construction industry with a robust alternative to conventional construction.

QOROX offers a wide range of services from commercial, residential, landscaping, roading, and fully customizable and scalable services.



Welcoming freeform design opportunities

Modularity has restricted buildings' designs due to the limitations and parameters of using timber, steel and precast. QOROX's printed structure pushes beyond the status quo and offers designers and architects limitless freeform opportunities.

Thriving for sustainability

QOROX pursues sustainability and reduction of construction's environmental impact, producing 40% less CO2 emissions throughout the building's lifetime. Printed structures are an exceptionally durable premium product with minimal maintenance.

Additive manufacturing combined with freeform designs results in an extraordinary and unique product.

QOROX will print your next masterpiece.



INFINITE CONCRETE STRUCTURES

Technical specs

Mortar Specification

COMPRESSIVE STRENGTH (f_{ck})

after 2h	approx. 15 Mpa	ASTM C109/C109M
after 1d	approx. 24 Mpa	ASTM C109/C109M
after 28d	approx. 38 MPa	ASTM C109/C109M

TENSILE/BOND STRENGTH (f_{ctm})

after 1d	$f_{ctk'} // = \text{approx. } 2,4 \text{ N/mm}^2$ $f_{ctk'} \perp = \text{approx. } 2,4 \text{ N/mm}^2$	DIN/NEN EN 1542
after 28d	$f_{ctk'} // = \text{approx. } 4 \text{ N/mm}^2$ $f_{ctk'} \perp = \text{approx. } 4 \text{ N/mm}^2$	

DENSITY (ρ)

Cured	approx. 1900– 2000 kg/m ³
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THERMAL RESISTANCE

At mean temperature 35°C	C 0,054 (m ² * K)/W	ASTM C177:10
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THERMAL CONDUCTIVITY (λ)

Based on corresponding standard	0,979 W/(m.K)	ASTM C177:10
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FIRE CLASSIFICATION

Class A1: non-combustible	DIN EN 13501-1
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WATER PREMEABILITY

Water proof at 25mm with a rate of 0.004 mm/min	AS/NZS 4456.16:2003
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Robot Specification

DIMENSIONS

Printing volume	L 2500mm x W 5000mm x H 4000mm (onsite and off site)
Reach	2650mm x 3500mm
Number of axis	7

PERFORMANCE

Position repeatability	0.15mm
Path repeatability at 1mls	1.5mm
Printing material	QOROX Mortar
Layer height	12.5 – 30mm
Printing speed	0 – 500mm/s
Print precision	1 mm all dimensions
Nozzle sizes	35 , 40 , 45, 50 mm
Printing location	on site or off site



Target markets

Residential

Group housing
Emergency housing
Social housing
Bespoke architecture houses

Roading

Median reservation
Acoustic walls
Slippage barriers
Cycling and pedestrian bridges

3 Waters

Custom manholes
Holding tanks
Rain gardens

Commercial

Structural walls and slabs
Exterior walls
Architectural & feature walls & slabs

Retail

Instant concrete
Planters
Chairs

Services

Supply & install
Supply only
Design to Print
Printer leasing
Mortar Supply

Unique clients

Cattle crossings
Disaster relief
Army barracks
Artificial Reef

Landscaping

Picnic tables
Benches
Planters
Sculptures
Retaining walls
Swimming pool walls

Prefab toilet blocks
Bollards
Climbing walls
Shelters
Fences
Skatepark ramps

