



Product Data Sheet

General Description

Australian developed and manufactured by Stonini, and is used specifically in the design of decorative wall paneling for architectural applications.

Stonini is lightweight, hand-made using industry proven materials and is suited for interior and specified exterior applications, fitted horizontally or vertically.

Stonini is an innovative folded profiled surface. The different range of profiles replicated the appearance of natural stone. It is affordable, simple to specify and easy to install.

General Properties

Stonini panels feature the following properties:

High physical properties:

- High Tensile strength
- Above average flexibility
- High Impact strength
- Good elongation

Durability:

Resistance to flex, cracking and fatigue.

Weathering:

Excellent resistance to chalking, yellowing and water compared to other stone like products.

Heat and thermal shock:

Excellent performer in hot and cold weathers.

Extra Strength:

Fibreglass is used combine both powder and binder and add extra strength resulting in making Stonini panels more resistant to impact for handling.

Mechanical Properties

Tensile and flexural:

Typical mechanical properties of standard Stonini at 20° and 65% relative humidity(RH)

Mechanical Properties	Unit	Average
Modulus of rupture in flexure	MPa	70
Limit of proportionality in flex	MPa	20
Strain of rupture in flexure	%	2.4
Tensile strength	MPa	34
Limit of proportionality in tensile	MPa	9
Modulus of elasticity (in tension)	*KN/mm ²	6
Strain at rupture in tensile	%	2

Two four-point bending tests have been performed as described in BS6432, Rilemtechnical committee 49TFR or ASTM (C-947) at across-head speed of 2m/min.

*N/mm² = MPa = Ca. 145 psi

Impact Resistance:

The impact resistance has been measured with a Charpy impact device for un-notched samples in accordance with Rilem recommendations of technical Committee 47TFR.

Typical Impact resistance properties of standard Stonini at 20° and 55% RH

Mechanical Properties	Unit	Average
Impact Strength	KJ/m ²	30

Durability:**Water Resistance**

Accelerated aging tests using weather-o-meter were performed and show satisfactory results, only minor loss of mechanical strength and density is observed for samples when tested under the same conditions.

Mechanical properties of unprotected standard matrix after aging (tested in dry conditions)

Material Properties	Unit	Before Aging	After Aging		
			Weather-o-meter	Wet/dry cycles	Immersion in water
Modules of rupture	MPa	75	65	65	68
Limit of proportionality	MPa	25	20	27	23
Strain at rupture in flexure	%	2.5	-	2.7	2.5
Density (Dry)	Kg/L	1.5	1.4	1.32	1.46

Mechanical properties of matrix after outdoor exposure

Material Properties	Unit	Before aging	2.5 years without surface protection
Modules of rupture	MPa	75	51
Limit of proportionality	MPa	25	17
Strain of rupture	%	2.5	3
Density (Dry)	Kg/L	1.5	1.38

It is advised to apply special surface treatment like coatings or sealers to improve water and stain resistance.

Fire Resistance:

Naturally cementitious ingredients and water used to make Stonini are non-flammables. In accordance with ANZ standard 3837 Stonini has been certified as:
Group 1 in accordance with Specification A2.4 of the Building Code of Australia (CSIRO) and Class A 2 in accordance with EN 13501-1:2007 + A1:2009 (European Fire Codes)

Panel Specifications:

Sizes: 600 X 1800 mm approx.

Sizes, colour and thickness may vary slightly as Stonini is handmade product.

Stonini Pty Ltd
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Product Data Sheet
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