

Introduction

NuClad® is a high quality calcium silicate architectural board reinforced with selected cellulose fibres and fillers. It is 100% free from asbestos, sepiolite, inorganic fibres or formaldehyde.

▶ The board is versatile and suitable for general use of internal and direct weathering applications when used in conjunction with external grade texture finish or other surface coating in new construction or refurbishment projects. It is an economical, non-combustible building board material to replace traditional concrete / clay block or cement-bonded particle board for the construction of non-load bearing elements. Unlike most plywood, cement-bonded particle boards, gypsum boards or magnesium boards, NuClad® is light weight, strong, moisture resistant, will not warp, swell or decay in wet area. The board is manufactured to ISO 9001 quality management system and ISO14001 environmental management system, and has obtained the Green Product Label Award issued by National Environment Protection Bureau.

Description

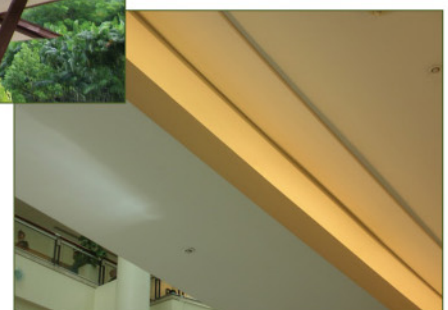
▶ NuClad® is off-white in color and has a smooth finish on one side and a slightly textured reverse. It can be left undecorated or can be easily decorated with skim coat, wallpapers, paints or tiles. It consists of calcium silicate matrix reinforced with selected fibres and special fillers enabling NuClad® to be robust for impact resistance. The board is cured under an autoclaving process where high pressure and steam is induced to ensure a complete chemical reaction to form silicate structure, thus providing the board with excellent dimensional stability, moisture and chemical resistance.

NuClad® contains no water soluble additives and will not rot, degrade or deteriorate. The board will absorb water causing some loss of strength, which is fully recovered on drying. Any staining on the boards caused by leakage can be easily painted over. Moisture will not cause leaching or efflorescence and has no permanent effect on the board.

NuClad® has high water vapour permeability which helps eliminate condensation or water trapped behind the board. It is non-combustible when tested in accordance with BS 476: Part 4. The board provides a degree of thermal insulation and is resistant to continuous operating temperature up to 80°C.



Semi-exposed Ceiling



Sizes

Thicknesses	6 / 9 / 12 / ~ 25mm
Widths	900 / 1200 / 1220mm
Lengths	1800 / 2400 / 2440mm

Note: All metric / standard boards come with cutting square edges. Recessed edges may be available upon request. Other sizes are also available and can be produced to special order.

Manufacturing Tolerances

Length tolerance	+/- 5mm
Width tolerance	+/- 5mm
Thickness tolerance	+/- 0.3mm
Diagonal tolerance	+/- 5mm



Performance

Density	1150kg/m ³ (+/-10%)
Weight (approx.)	7.20kg/m ² - 6mm 10.80kg/m ² - 9mm 14.40kg/m ² - 12mm
Surface alkalinity	pH 7-10
Flexural strength (along grain)	8.0 MPa
Flexural strength (across grain)	11.3 MPa
Moisture movement (ambient to saturated)	0.06%
Moisture content	Ex works - 18% In situ - 7%
Sag when suspended at 610mm span	<1mm
Thermal conductivity	0.21W/mK
Thermal movement	8 x 10 ⁻⁶ m/m.C
Resistant to continuous heating	80°C
Non-combustibility – BS476: Part 4:1970 and GB8624-Grade A	Pass
Minimum bending radius	Along grain 5200mm for 6mm 7600mm for 9mm 10200mm for 12mm
Sound attenuation (estimate)	30 dB for 6mm board 38 dB for 9mm board 42 dB for 12mm board
Acoustic reduction (over range 100-3150 Hz, estimate)	Average 25 dB Rw 46 dB for 91mm thick partition Rw 49 dB for 99mm thick partition Rw 56 dB for 123mm thick partition Rw 61 dB for 214mm thick partition

For details of acoustic partition, please contact your nearest Soben International Office.

Interior wall decoration – NuClad® as a versatile solution



Specific Properties



Moisture resistance



Acoustic insulation



Lightweight but strong



Small expansion rate



Non-combustible
BS 476: Part 4



Decorative finishes
by tiles, paint or wall
paper



Rot proof, anti-bacterial,
resistance to insects or
mould growth



Maintenance friendly



Good chemical
resistance



Easy to use



Immune to attack
from insects or
vermin



NuClad® grid ceiling system in biological clean room



Curved bulk head & light trough



Semi-exposed featured ceiling

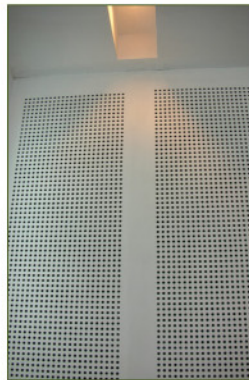
Application

NuClad® can be used in a wide variety of building applications. It is easy to handle or work with woodworking tools and easy to decorate. Typical applications include:

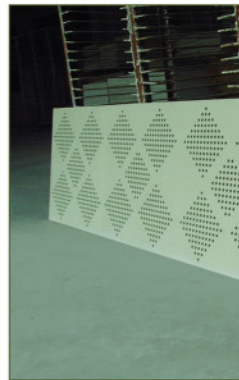
- Dismounted dry wall systems and acoustic insulated partitions
- Decorative and moisture resistant ceilings
- Bathroom and shower partitions
- Access panels in wet area
- Backing boards for tiles or marble claddings
- Aesthetic casings to M&E building services
- Industrial wall linings
- Perforated ceilings & wall panels
- Semi-exposed applications such as eaves, soffits and sunscreens



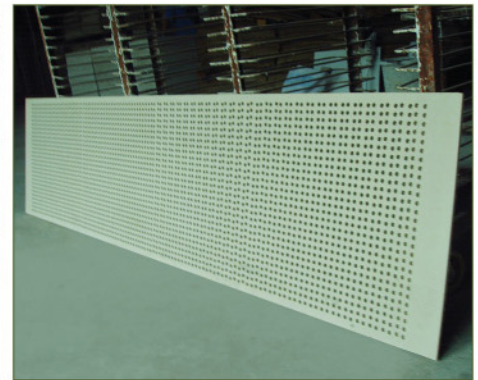
Moisture resistant ceiling and wall lining in wet area



NuClad® acoustic wall panel



Perforated finish



Fully perforated finish

Health & Safety

NuClad® is formulated without asbestos, sepiolite, inorganic fibres or formaldehyde. When using power saws or sanders in a confined space, dust extraction equipment is recommended to control dust levels. NuClad® is designed for non-load bearing construction. Horizontal boards or ceiling panels must not be walked on as they are not designed to take additional loads between supports; if there is a risk of this occurring, warning notices should be displayed. Fixers must ensure that they work from adequate and safe platforms where necessary.