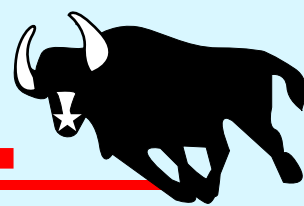


**BISON PANEL**



CEMENT BONDED PARTICLE BOARD



## Introduction

Bison Panel is a cement bonded particle board made out of 62% cement 28% wood particles, balance water and other chemicals. Due to adoption of special manufacturing process, the panel acquires the strength and durability of cement and workability of wood.

This multipurpose building board - a proven product in countries around the world is introduced in India by NCL Industries Limited with imported technology from Bison Werke of Germany.





## Interior Applications

- Superior qualities of dimensional stability, fire resistance and acoustic insulation make Bison Panel the ideal building material for houses and commercial complexes for partitions and wall panelling. It is ideally suited for replacing wood based panels for cupboards, table tops, fire doors etc. It can be used with great advantage, for false ceiling and false flooring as well. When laminated or tiled, it can bring in functional elegance and cost effectiveness in houses, offices, commercial centres, hospitals and public buildings.
- High humidity areas such as bath rooms, kitchens etc., would find the water resistant quality of Bison panel a great advantage.





## Exterior Applications

Bison Panel with its exceptional property of weather resistance, is ideally suited for all exterior applications.

Its unique water resistant property would find it ideal for humid and wet areas, and it is used for wall & flooring panels in farm houses, dairies, animal sheds, etc.

In conjunction with steel sections, these panels can provide the basic building material for pre-fabricated housing. This concept would save considerable time in execution of large housing projects resulting in economic advantages.

It is best in applications such as project housing and defence camps where mobility and faster construction is required.



- Eco Friendly
- Recognized by Indian Green Building Council

## Floorings

Bison Panel is the first choice, in many countries, as an alternative to wooden flooring, to suit different climatic conditions - as a thermal insulating floor, as a covering for under floor heating systems, hollow flooring, floating floors and mezzanine flooring.

Safe Working Loads (UDL) for different spans.

Thickness in mm	Span in mm L	2 to 3 Supports		Multiple Supports	
		Max. Load Kgs/m <sup>2</sup>	$\frac{L}{300}$	Max. Load Kgs/m <sup>2</sup>	$\frac{L}{300}$
10	300	267	148	333	185
	400	150	63	188	79
	500	96	32	120	40
	600	66	19	83	24
12	300	391	278	457	457
	400	220	117	257	257
	500	141	60	164	145
	600	96	35	114	84
16	300	697	659	812	812
	400	392	278	457	457
	500	251	143	293	293
	600	174	83	203	199
18	300	915	895	1067	1067
	400	514	421	600	600
	500	329	215	430	384
	600	228	125	266	264
20	300	1088	1088	1269	1269
	400	612	543	714	714
	500	392	278	547	457
	600	272	161	317	317
30	300	2411	2411	2812	2812
	400	1356	1356	1582	1582
	500	868	865	1012	1012
	600	603	539	703	703
40	300	2720	2720	3182	3182
	400	1625	1625	1909	1909
	500	972	960	1142	1142
	600	680	635	795	795

## Prefab Shelters with Bison Panels







## Physical Properties

Transverse tensile strength (Internal Bond)	0.40 N/mm perpendicular to surface (min.)
Bending strength	9 N/mm <sup>2</sup>
Compressive strength	15 N/mm <sup>2</sup> perpendicular to surface
Density	1,250/- Kg./M <sup>3</sup> average
Thermal insulation	Thermal conductivity coefficient = 0.22 W/m.k.
Sound insulation	Sound reduction factor 18 mm. thick panel : 35 dB
Surface spread of flame (fire rating)	Tested in accordance with BS 476 "Fire test on building material and structure" - Part 6 & 7 classifies it as class '0' building board with class '1' surface spread of flame. Part 8 upto 2½ hours.



## Sound Insulation

Air borne sound reduction varies between 30 and 37 dB for frequency range 100-3150Hz according to thickness of Bison Panel. When used in stud partitioning, a reduction of over 60 dB can be achieved with suitable construction.

Thickness (mm)	6	8	10	12	16	20	30	40
Reduction in dB	30	31	32	33	34	35	36	37

## Dimensions

2440 x 1220 mm / 3050 x 1220mm  
 Thickness : 6, 8, 10, 12, 16, 18, 20, 25, 30, 40 mm

Screw Holding Power  
 Perpendicular to surface 2000 N

The technical cell of Ncl offers guidance to Customers in specific applications



## Star Features

- Bison Panel is similar to timber or wood particle boards in workability. It can be cut with normal wood working tools.
- Bison Panel can be drilled with hand or power drills.
- Bison Panel can be nailed or fastened with screws.
- Bison Panel edges can be precision cut to obtain different profiles like grooves, tongues, chamfers, etc. for accurate jointing.
- Bison Panel's smooth and hard surface permits usage as such, and can be painted directly.
- Bison Panel can be surfaced and laminated with a variety of materials like tiles, foils, laminates or veneers to suit any decor.



FIRE RESISTANT



WEATHER RESISTANT



DIMENTIONALLY STABLE



SMOOTH SURFACE



TERMITE RESISTANT




SOUND INSULATION



WOOD WORKABILITY



CHEMICALLY STABLE



**NAGARJUNA CEMENT**  
Quality, Strength and Durability



Prepainted Cold Roll Formed Steel Profiles for Partitions, Doors, Windows etc with Italian Technology



Manufacturer of Plasters, Paints, and Putty's for Interior & Exterior with Technology from Sweden




CEMENT BONDED PARTICLE BOARD



Pre-laminated Cement Particle Board



DESIGNER BOARD



Hydro Power Generation at TBDAM 8.5 M.W. And SRBC 7.5 M.W



INSTANT HOUSING SOLUTIONS FOR PROJECT HOUSING



UPVC Windows & Door Systems  
An INDO-TURKISH Joint Venture



Construction of Building Complexes and Townships



**PERMANENT FORMWORK WITH CEMENT PARTICLE BOARDS**



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