



TERASUN

ZHEJIANG  
TERASUN AIR  
DUCT CO.,LTD

# TSM BOARD

MULTI-PURPOSE  
CONSTRUCTION BOARD

Since **1989**

## TSM BOARD

—  
ADD: Chongren Industrial  
Clustering Maren,  
Shengzhou,  
Zhejiang, China

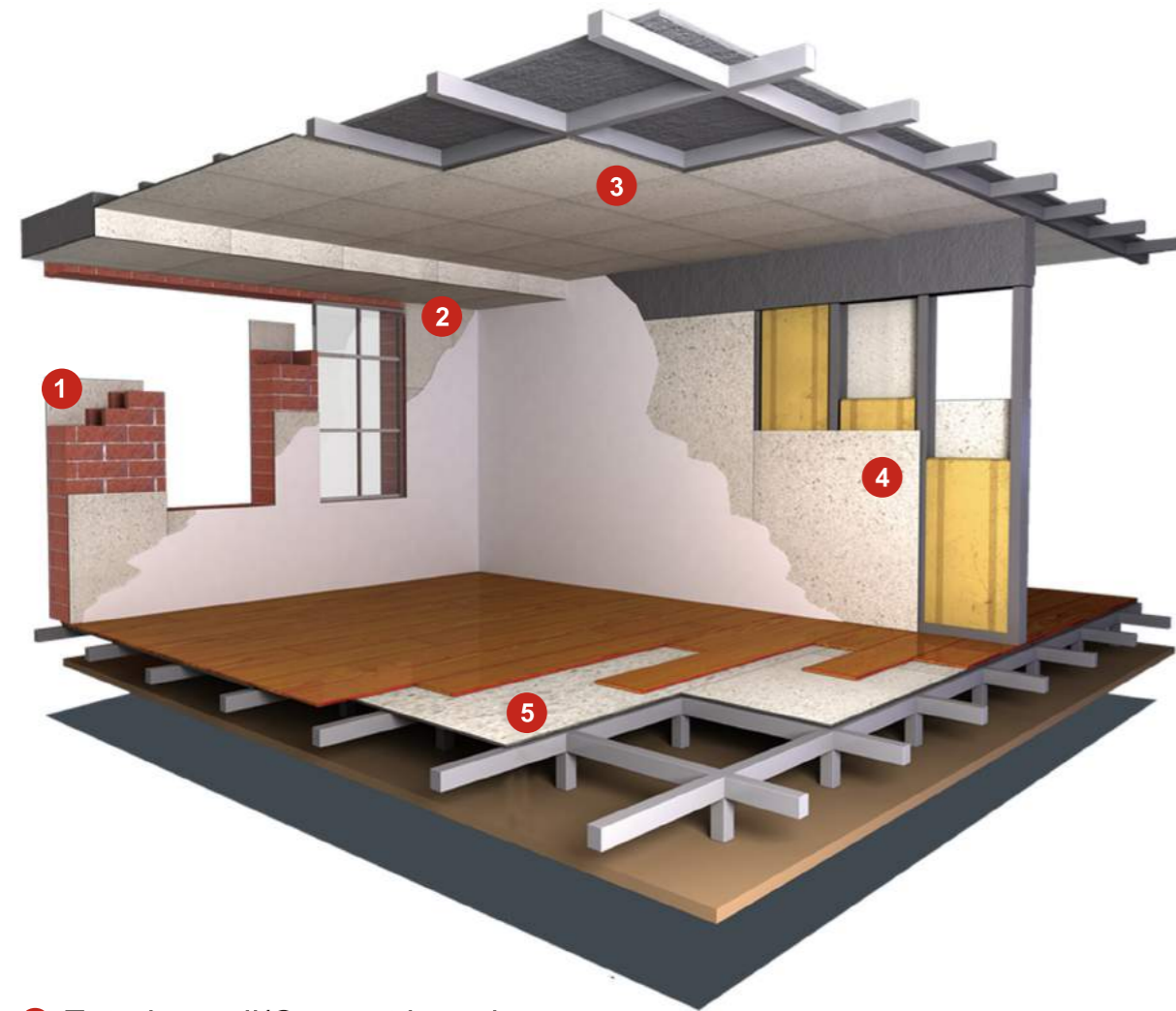
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# TSM BOARD

MULTI-PURPOSE  
CONSTRUCTION BOARD



- 1 Exterior wall/Cement board
- 2 Interior wall
- 3 Ceiling/Suspended ceiling
- 4 Partition wall/SIP
- 5 Subfloor



**BRAND AWARDS**



**NB2317**  
Factory Audited



**Intertek listed**  
Factory audited and inspected 4 times per year



**ISO 18001**  
Occupational health and safety management



**ISO 9001**  
Quality system approved








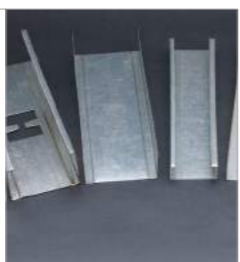



**ISO 14001**  
Environmental quality

	European Standard	North American Standard	Other standards
<b>Standard</b>	EN 12467 EN 13501 BS 476	ASTM E 84 CAN/ULC S135 ASTM E9-09 AC 386	CNS 14705 GB 8624 JC 688
<b>Mark</b>			/
<b>Key Content</b>	Reaction to fire:A1	WH APPROVED(listed by Intertek)	Qualification
<b>Testing Institution</b>			

# CONTENTS

ZHEJIANG  
TERASUN AIR  
DUCT CO.,LTD

<p><b>P04</b> Company Profile</p>		<p><b>P05</b> TSM BOARD</p>		<p><b>P08</b> TSM BOARD One board covers all</p>	
<p><b>P09</b> Application</p>		<p><b>P10</b> SIPs</p>		<p><b>P11</b> External Solutions</p>	
<p><b>P12</b> Installation Solutions</p>		<p><b>P13</b> TSM finishing accessories</p>		<p><b>P14</b> Projects</p>	



## COMPANY PROFILE

Zhejiang Terasun Air Duct Co.,Ltd. is a professional company which manufactures composite board and air duct for construction. We are a leader in researching and developing new environmentally friendly and energy saving building materials. Company established in 1989 with more than 20 years' experience in the production of building board.

## Milestone

- 1989  
Company Established
- 1992  
Started to sell fireproof board
- 1997  
Products applied to Qinshan Nuclear Power Plant
- 2008  
Products applied to Beijing Olympic Games stadium
- 2010  
Products applied to Guangzhou Asian Games venues
- 2010  
Products applied to Shanghai World Expo pavilion
- 2011  
Started to participate in the oversea Exhibitions
- 2013  
Products exported to Italy and Japan
- 2014  
Exported to over 30 Countries
- 2015  
CE certified
- 2015  
ETL approved and Intertek listed for North American approval
- 2016  
Products applied to Shanghai IFC--Top 1 highest building in China





# TSM BOARD

TSM board is a New generation ECO-friendly lightweight high strength cement board. Safer, easier, faster. it can replace the traditional building boards in different applications.

# TSM BOARD

- High strength cement
- Fiber reinforced,lightweight cement boards
- Suitable for outdoors/indoors
- Atmospheric agent resistant
- Category A

## Technical Data

Thickness	12mm (3~20mm)
Normal size	1200mm*2400mm (Can be customized)
Density	≤0.95g/cm <sup>3</sup> , < 1.2g/cm <sup>3</sup>
Tolerance (Level 1)	Width/length:-4mm~0mm Depth:±0.5mm
MoR Flexural Resistance	≥6Mpa
Water Impermeability (EN 12467)	Category A
Freeze-thaw cycle (EN 12467)	Category A (100 cycle)
Wet-day cycle (EN 12467)	Category A (50 cycle)
Warm Rain (EN 12467)	Category A (50 cycle)
Warm Water (EN 12467)	Category A (56 day)
Thermal Conductivity	0.2w/(m.k)
Resistance to Bacteria	0 (no growth)
Resistance to fungi	0 (no growth)
Resistance to Fire	A1 (noncombustible)
Curvature Radius	2m
Sound proofing	41dB
Nail holding power	20~60 N
Chloride ion	No
Non-formaldehyde	Yes
Non Asbestos	Yes
Non-Toxic	Yes



# TSM BOARD fire resistance

## Test Report

The tested specimen has been subjected to a fire resistance test in accordance with BS476-20 and BS 476-22.

The fire resistance performance of the specimen was judged against the criteria for insulation and integrity as specified chapter 6 of this report. and the specimen satisfied the performance requirements for the following period:

Insulation	Integrity
98 min	120 min

The test was terminated after a period of 121 minutes.

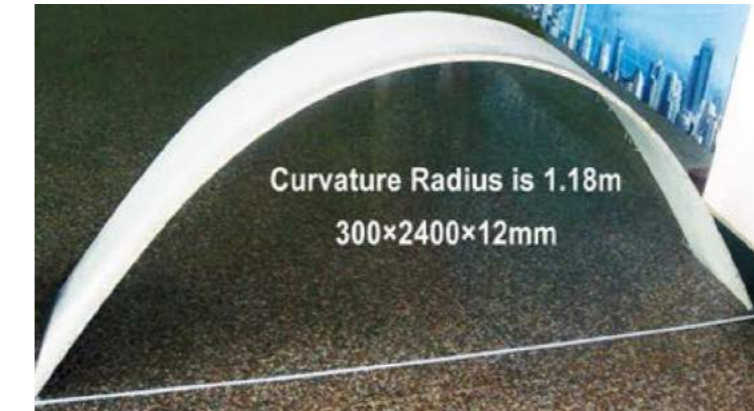
Test method	Parameter	Number of tests	Results
EN ISO 1182	$\Delta T/K$	5	7.4
	$\Delta m/\%$		28.28
	t/s		0
EN ISO 1716	PCS/MJ/kg <sup>a</sup>	3	1.44
	PCS/MJ/kg <sup>b</sup>		-
	PCS/MJ/kg <sup>c</sup>		-
	PCS/MJ/kg <sup>d</sup>		-

**Note:**  
 $\Delta T$  - temperature rise [k]      /f - duration of sustained flaming [s]  
 $\Delta m$  - mass loss [%]              PCS - gross calorific potential [MJ/kg or MJ/m<sup>2</sup>]

This classification has been carried out in accordance with EN 13501-1:2007+A1:2009.



# TSM BOARD One board covers all

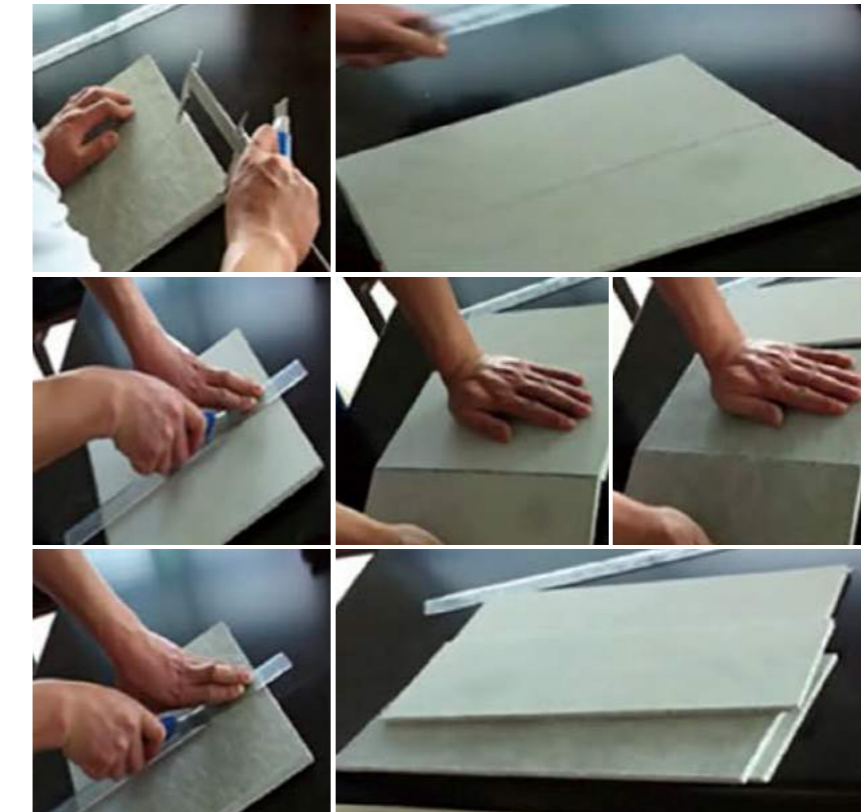


Flexible



Lightweight

## Easy to cut



## Low water absorption



Insect resistance



Non-asbestos



Non-formaldehyde



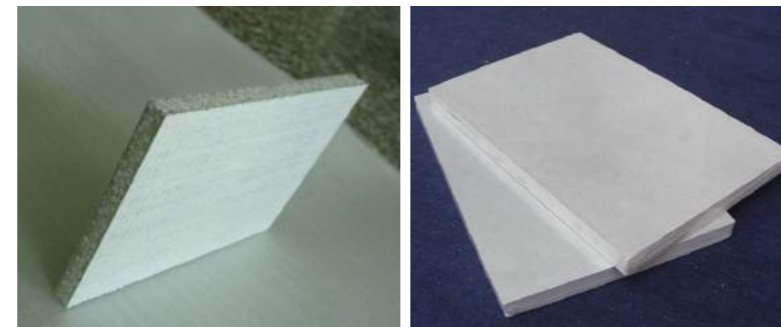
## TSM VS OSB



TSM

OSB

## TSM VS GYPSUM



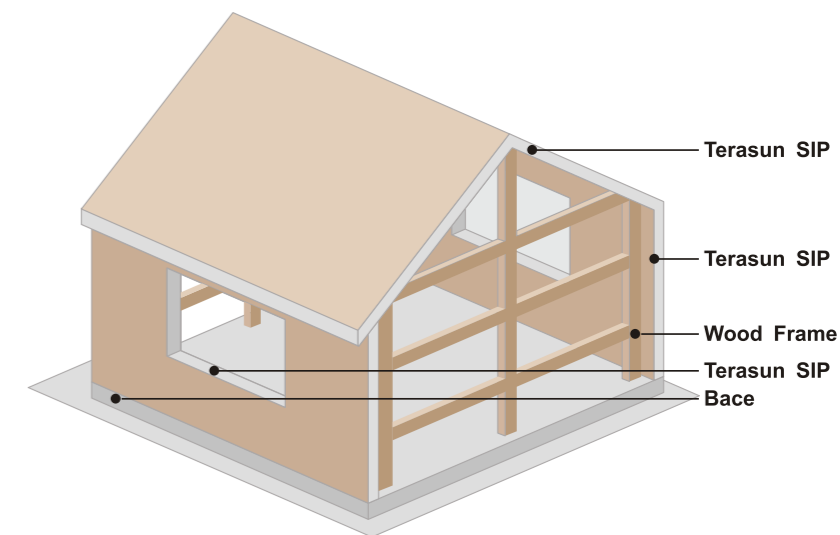
12mm TSM = 2pcs \*15mm GYPSUM BOARD



# SIPs

## SIP Specification

- Normal Size: 1220mm\*2440mm (Can be customized)
- Thickness: ≤ 114mm (TSM+EPS+TSM)
- EPS Density: 18kg/m<sup>3</sup>



# Application

- CONSTRUCTION SPEED
- THERMAL-ACOUSTIC INSULATION
- WATER RESISTANCE
- FIRE RESISTANCE
- REDUCED RENOVATION WEIGHT
- EASY EQUIPMENT INSTALLATION
- REDUCED ENERGY CONSUMPTION
- SEISMIC RESISTANCE

A	B	C
D	E	F

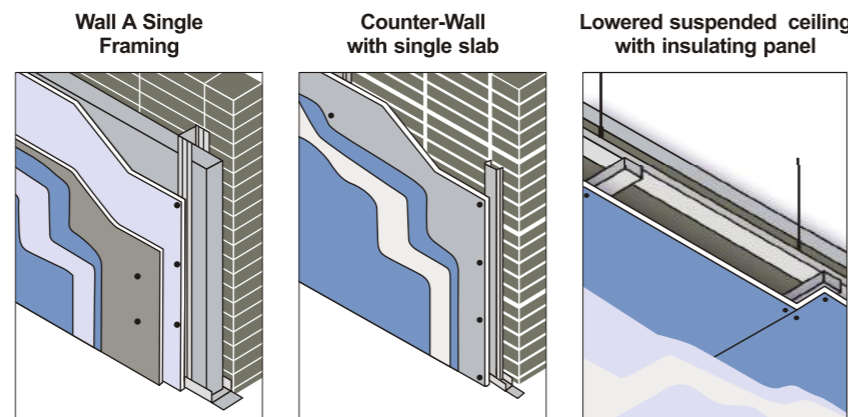
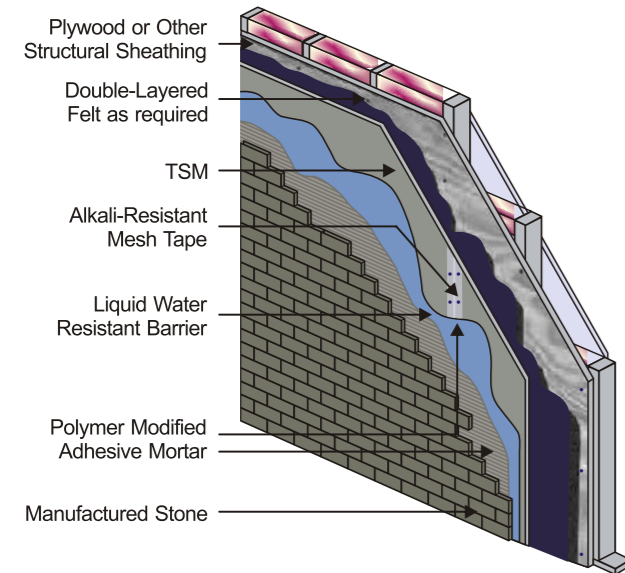
- A. Backer board
- B. Exterior
- C. Interior
- D. Subfloor
- E. Partition
- F. Bathroom





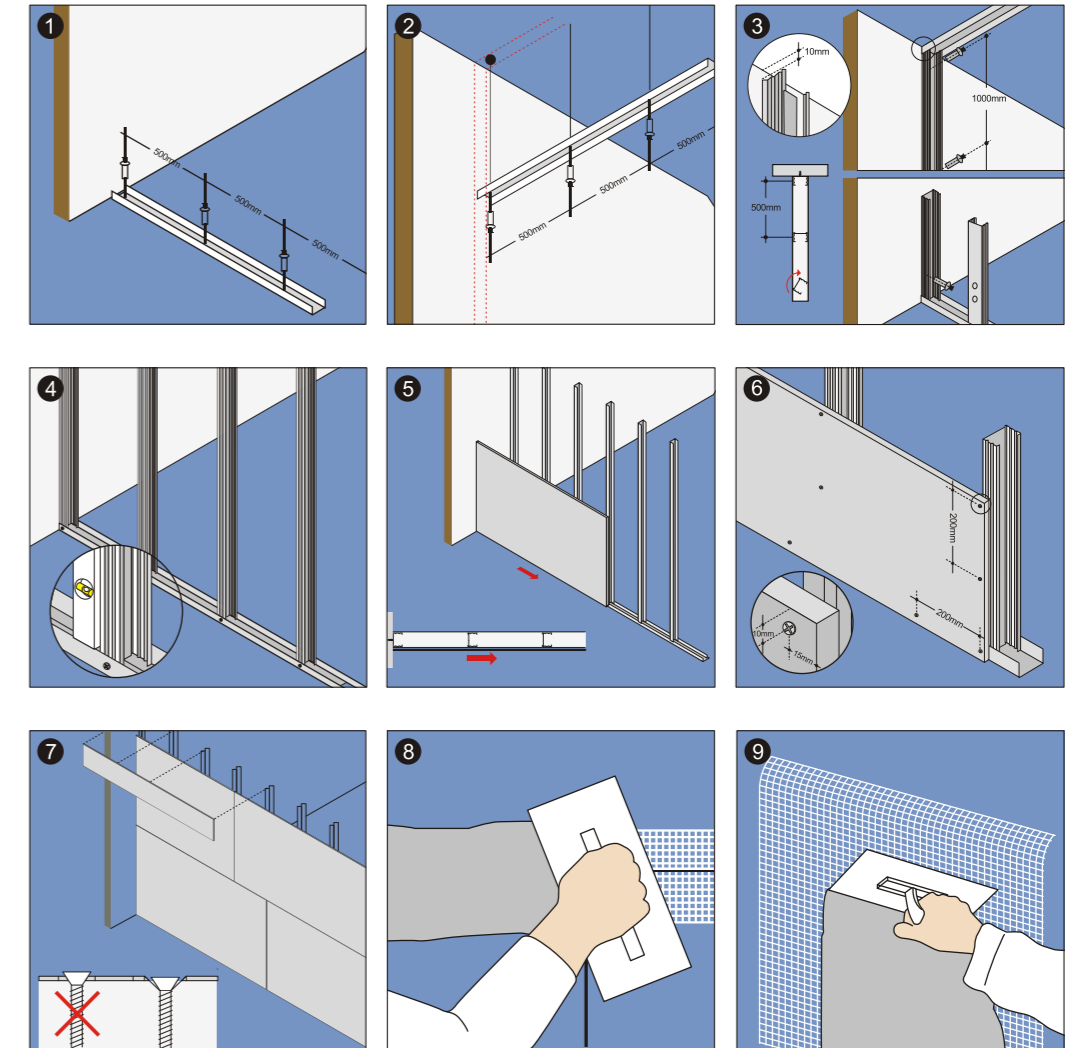
# External Solutions

## Manufactured Stone Exterior Wood Stud Assembly

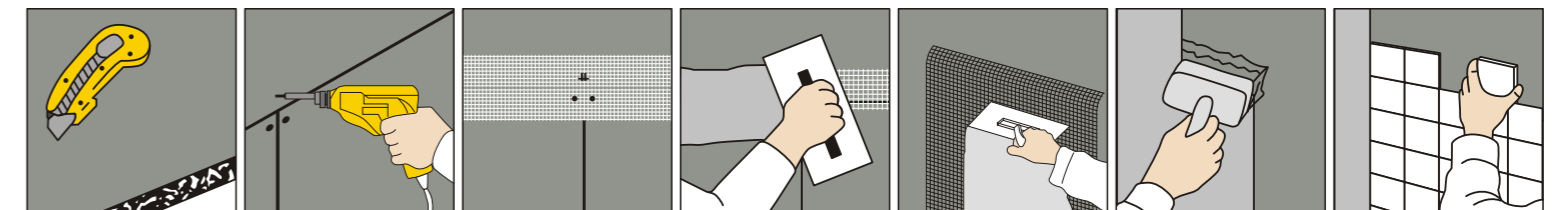


# Installation Solutions

1. Bottom guide rail
2. Ceiling rail
3. Uprights mounting
4. Uprights mounting
5. Laying of the slabs
6. 3 mm space between adjacent slabs
7. Laying slabs on the opposite sides
8. Grouting joints
9. Leveling



## Ease of processing



# TSM finishing accessories



Metal profiles



Corrosion-resistant screws



Breathable membrane



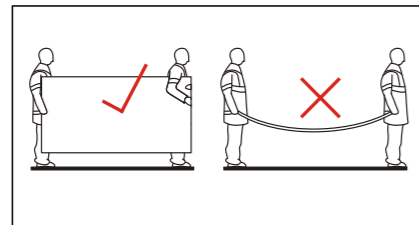
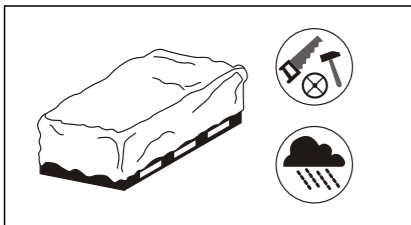
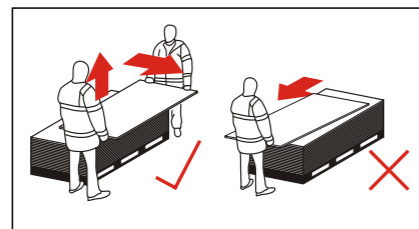
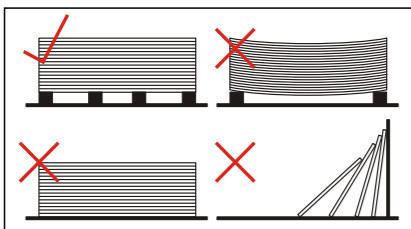
Joint filler



Smoothing stucco



Fiberglass mesh



## Health & Safety

All the requirements of the health & safety at work act should be met as well as any general or specific regulations applying to the area where the boards are being installed. Due to the creation of dust and debris when using power tools for cutting/shaping etc., appropriate dust extraction systems should be put in place to control these levels. Long term exposure to dust can be harmful to health. The use of protective equipment i.e. gloves/goggles is advised at all times.

# PROJECTS





# PROJECTS

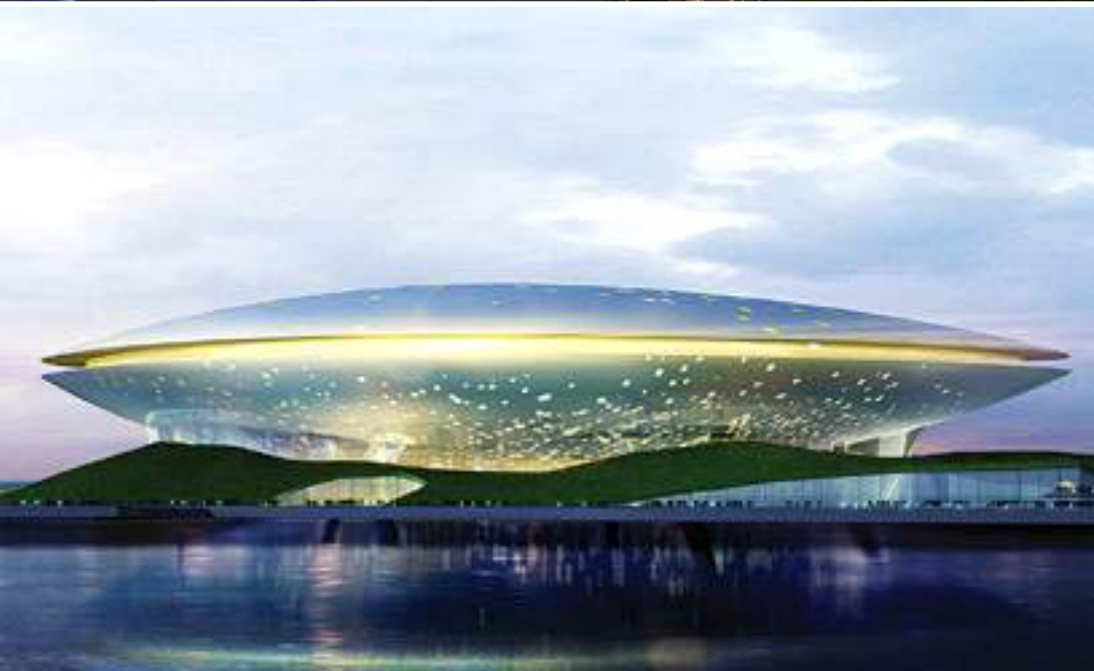


# PROJECTS

## CCTV Building



**TSM BOARD**  
MULTI-PURPOSE  
CONSTRUCTION BOARD



# PROJECTS

- A. Shanghai World Expo
- B. World Expo Shanghai Performing Arts Center
- C. Shanghai IFC



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