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RPV INDUSTRIES
Green Housing Solutions

RPV GREEN BOARDS TM

Magnesium Oxide - MgO (Boards / Door Core)

RPV Industries Private Limited

Regd. Office: 904, K10 Grand, B/h Atlantis K10, Sarabhai Campus, Genda Circle, Vadodara – 390007.



RPV Green Board™

- ❖ Thickness (mm) : 6, 10 & 18
- ❖ Size (mm) : 1220 x 2440
- ❖ Edge : Square

RPV Door Core

- ❖ Thickness (mm) : 30
- ❖ Size (mm) : 900 x 2100
- ❖ Edge : Square





TM
RPV GREEN BOARDS
(Multi Purpose Boards)



- **FIRE PROOF** : Non-Combustible - Class 'A1' Fire Rated – No Flame spread and Zero smoke



- **Water / Moisture Retardant** – Boards are completely water resistant and remains dimensionally stable in humid conditions and does not deteriorate when immersed in water or exposed to freeze-thaw cycles.



- **Anti- Termite** – Non Nutrient for Termite, Fungus,

- **Thermal Insulation** : Excellent Acoustic damping due to its high density and elasticity, also reduced loss of energy when spaces are heated or cooled, due to its good thermal conductivity.



- **Acoustic proofing** : Perfect sound insulation is achieved by combining boards system with adequate acoustic insulation (46db).

- **Lighter weight** : Boards are strong and lighter in weight then Fiber Cement Board.



- **Durable** : Highly resistant to impact, with expected life span of more than 25 years Anti – Termite, Mold, Insects Free.

- **Eco Friendly** : Non Toxic, Zero Asbestos (100% Natural Minerals), Recyclable.



APPLICATIONS

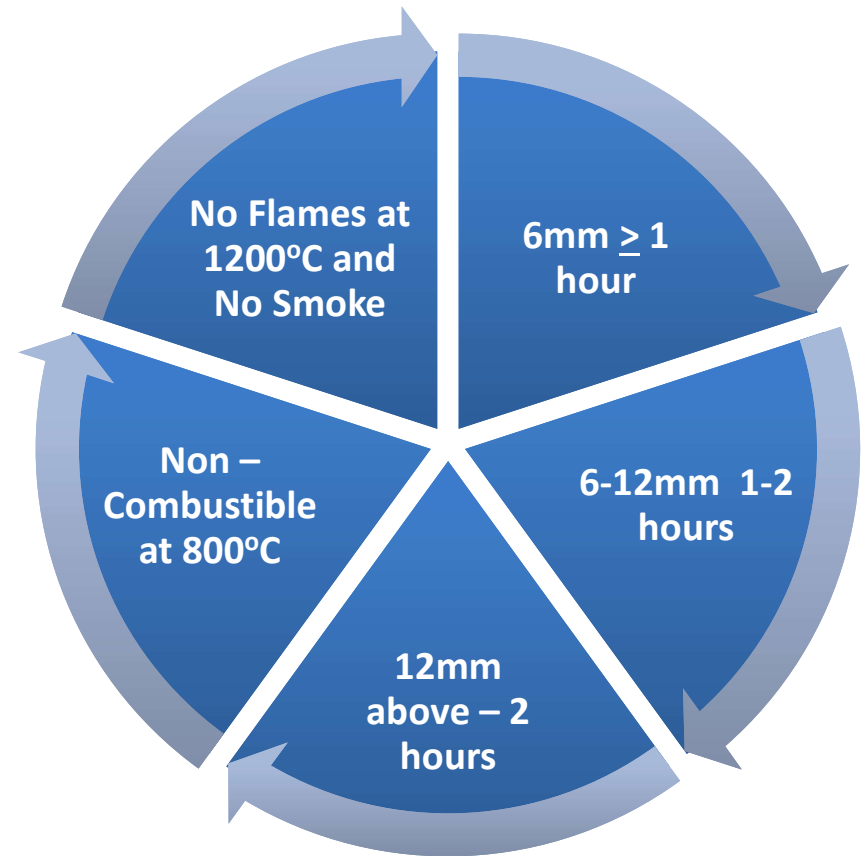


FIRE PROTECTION

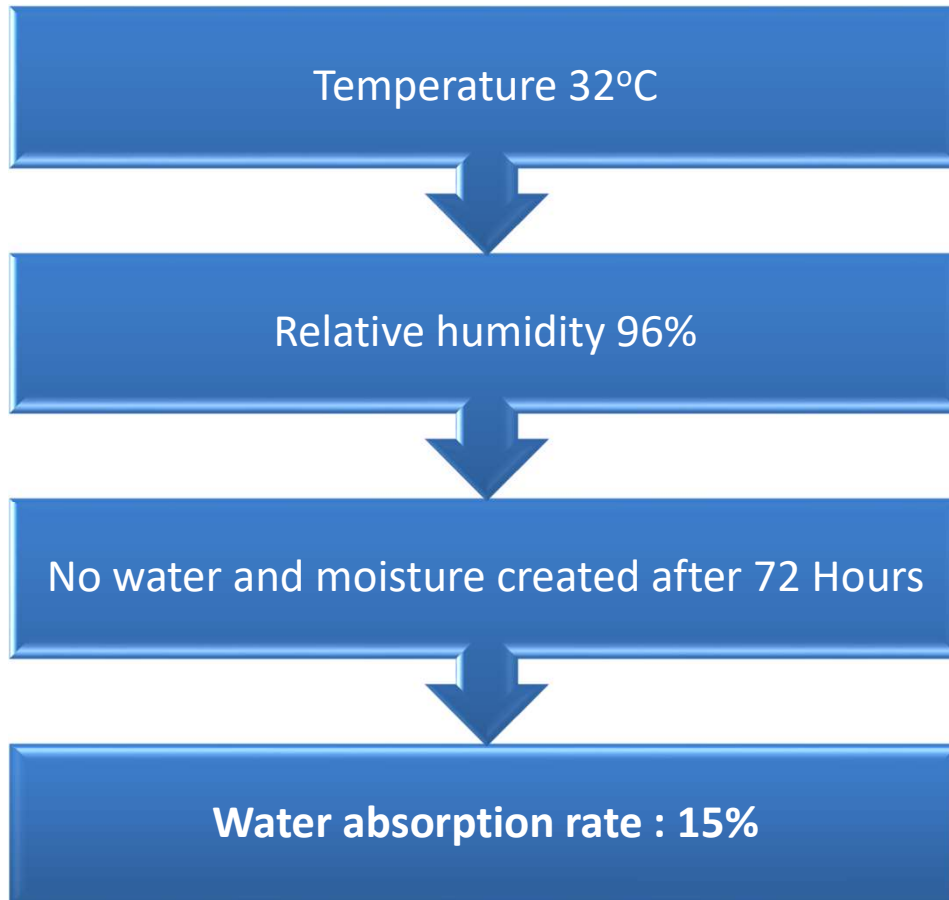
The main raw material for RPV green Board™ is magnesium oxide, which is non combustible material. According to CE standard EN 12476:2012, Reaction to fire for RPV Green Boards™ is Grade A.

This means that RPV Green board™ does not burn and its rated with zero flame and zero smoke spread.

Also during fire accident RPV Green Boards™ actually releases water that is chemically bound with the board. Furthermore, RPV Green board™ is noncombustible of Class A building Material and could be 1-4 hours fire rating wall system



WATER RESISTANT AND NOT AFFECTED BY MOISTURE



RPV Green board™ allows for long-term exposure to a moist environment. Percentage of swelling is less than 0.6% if immersed in water for one month.

It will not swell, delaminate, warp or disintegrate when exposed to a wet environment. Remarkably, it is also impermeable to water and this allows the board to be used as a wall-board in construction where breathable walls are specified.



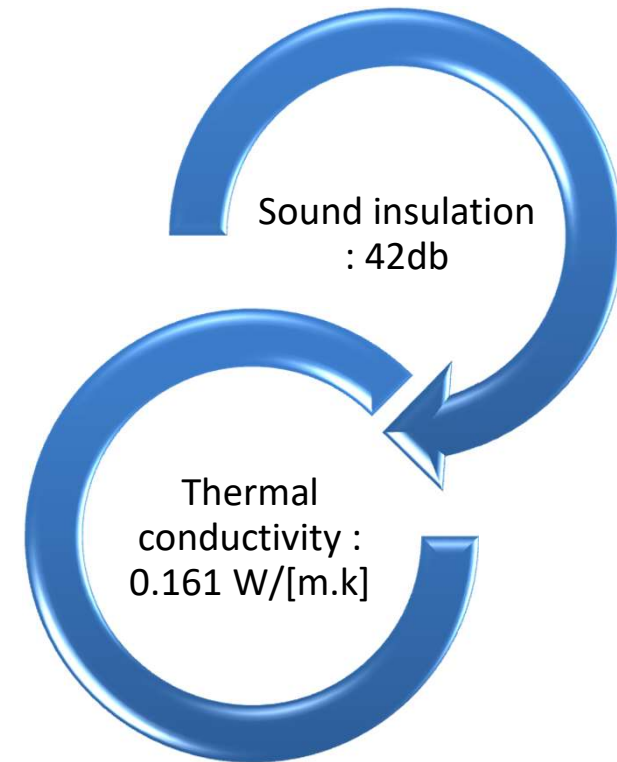
SOUND AND THERMAL INSULATION

RPV Green board is an excellent acoustic dampening material with higher strength and elasticity.

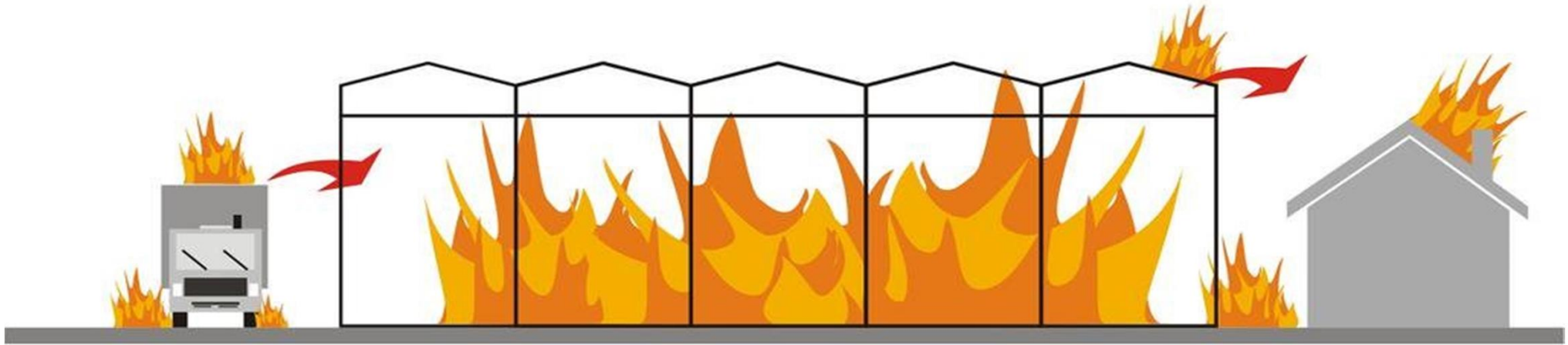
For 6mm board, the sound insulation can be 29db.
Two layers of 9mm board + 50mm rock wool + 75mm keel, sound insulation can reach 42db.

Also it has good performance of Thermal preservation.

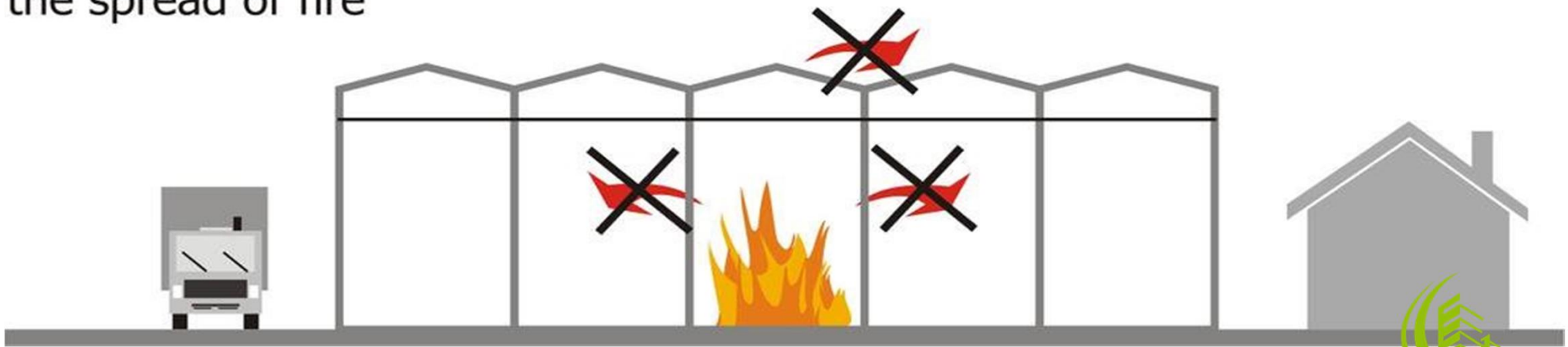
The main raw material, magnesium oxide, is a natural fireproof and heat insulation material, which makes the board a material of low thermal conductivity – 0.161 W/(m.k), while the cement material is about 0.2-0.25 W (m.k)



Spread of fire without MgO Firewall Sheathing System



MgO Firewall Sheathing System provides protection against the spread of fire



HIGH STRENGTH AND LIGHT WEIGHT

Impacting
Strength : 8.3
kJ/m² (10mm)

Nailing strength
: 8GN/mm

Bending
Strength:
18.8Mpa
(10mm)

As the density is not relatively high, the board can be classified as light weight compared to other products attempting to achieve the same weight to strength ratio and as such it can greatly decrease the weight of a building.

At the same time, the material is high-strength and not easily damaged. The board is with better performance, versatile use, high strength, faster finishing, water resistance etc. it's an economical alternative for the materials with similar characteristics.

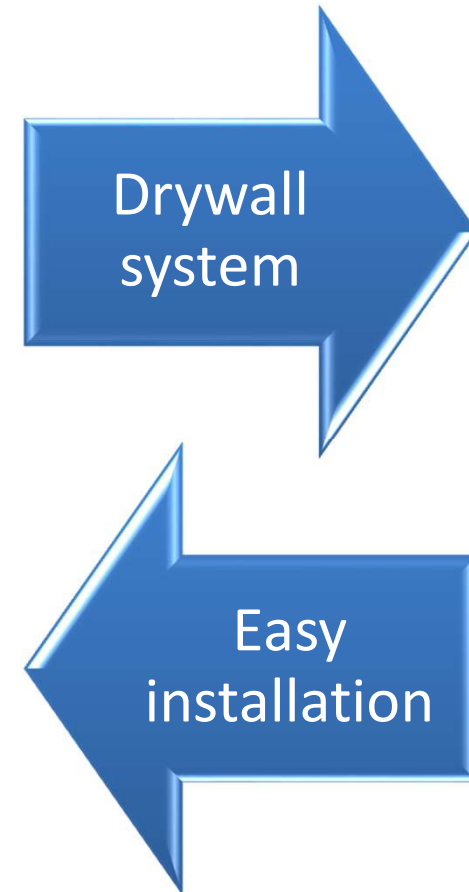


EASY TO USE AND INSTALL

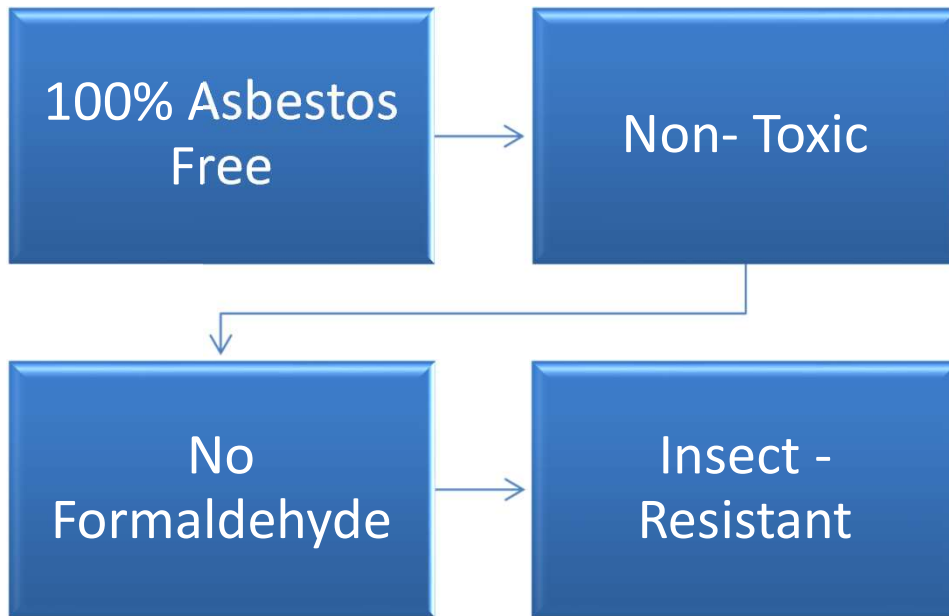
RPV Green board™ is easy to be cut, sawed, nailed and decorated.

There is a smooth side that can be taped and jointed, ready to be decorated such as overlaying, wallpapering, painting, texture coat and veneering.

The other side is uniform sand textured, ideal for tile backing



ENVIRONMENTAL HEALTH & ENERGY EFFICIENCY



RPV green board™ does not contain any organic solvents, formaldehyde, asbestos, oils or other toxic substances that can have negative impact on the environment and waterways. As such, sawdust from RPV Green board™ can safely be disposed of in landfills. Off-cuts of our board can be reground.

It is a better environmental alternative of gypsum drywall and cement backer boards for walls, floors and counter tops.

Also the production process is nature conservation, low energy consumption, so sewage material and energy efficiency because of the main production theory is based on the chemical reaction of raw materials and they are all natural materials.



Ceiling

Residential

Interior / Exterior walls

Commercial

Wall Cladding

Warehouse

Mezzanine Flooring

Hospitals

Modular Kitchen

Factories

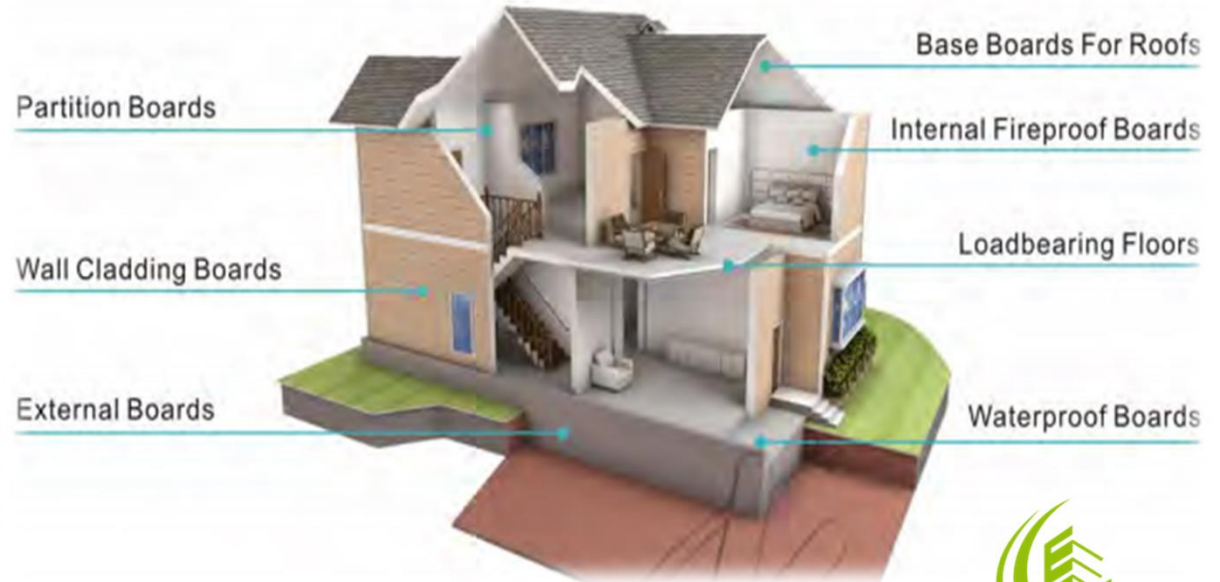
Roof Underlayment

Government Buildings

Dry walls

Public Buildings





RPV Green Board™ Specification

Property	Testing Standard	Results
(Length x Width x Thickness)	ASTM C1185	1200mm x 2400mm x 12mm
Reaction to fire	EN 13501-1:2013 / ASTM E-84	Class A1 (Non Combustible)
Dimensions tolerance	EN 12467:2012	≤ + 3 mm
Thickness tolerance	EN 12467:2012	≤ + 0.5 mm
weight (Kg/mm for 2.98 sqm)	ASTM C1186-2008	3 Kg / MM
Average density	EN 12647	1100 kg/m ³
Bending strength ambient conditions	EN 12467	21.36 N/mm ²
Tensile strength perpendicular to the board	EN 319	0.61 N/mm ²
Bending radius	EN 12647	2.2 m
Thermal conductivity	EN ISO 10456	0.317 W/(m K)
Modulus of rupture / Flexural resistance (Dry)	EN 12467	20.75 Mpa



Property	Testing Standard	Result Dimensions
Water vapour diffusion coefficient	EN ISO 12572	51 μ
Water vapour resistance factor	EN ISO 12572	22 μ
Allowable racking shear	ASTM E72-05	458 plf
Average Nail head pull-out	ASTM D1037	0.9 kN
Average Screw pull out	BS EN 14566: 2008 & A1: 2009	1.2 kN
Average Screw pull through	BS EN 14566: 2008 & A1: 2009	1.6kN
Moisture content (at 90 \pm 2 $^{\circ}$ C)	EN 318 / ASTM C 1185 Section 10	8.5 %
Freeze/Thaw (cycles)	ASTM C 666	100
Breaking strength	EN 12467	1.95 Mpa
Chloride ion determination	ASTM C 871-11	0.019%
Smoke development index (SDI)	ASTM E84-18, UL 723-10	25 (CLASS A)
Flame development index (FDI)	ASTM E84-18, UL 723-10	0 (CLASS A)
Humidified deflation (Mean mm)	ASTM C473:2017, Clause 14	Nil



EXPORT / IMPORT PACKAGING

RPV Green Board™

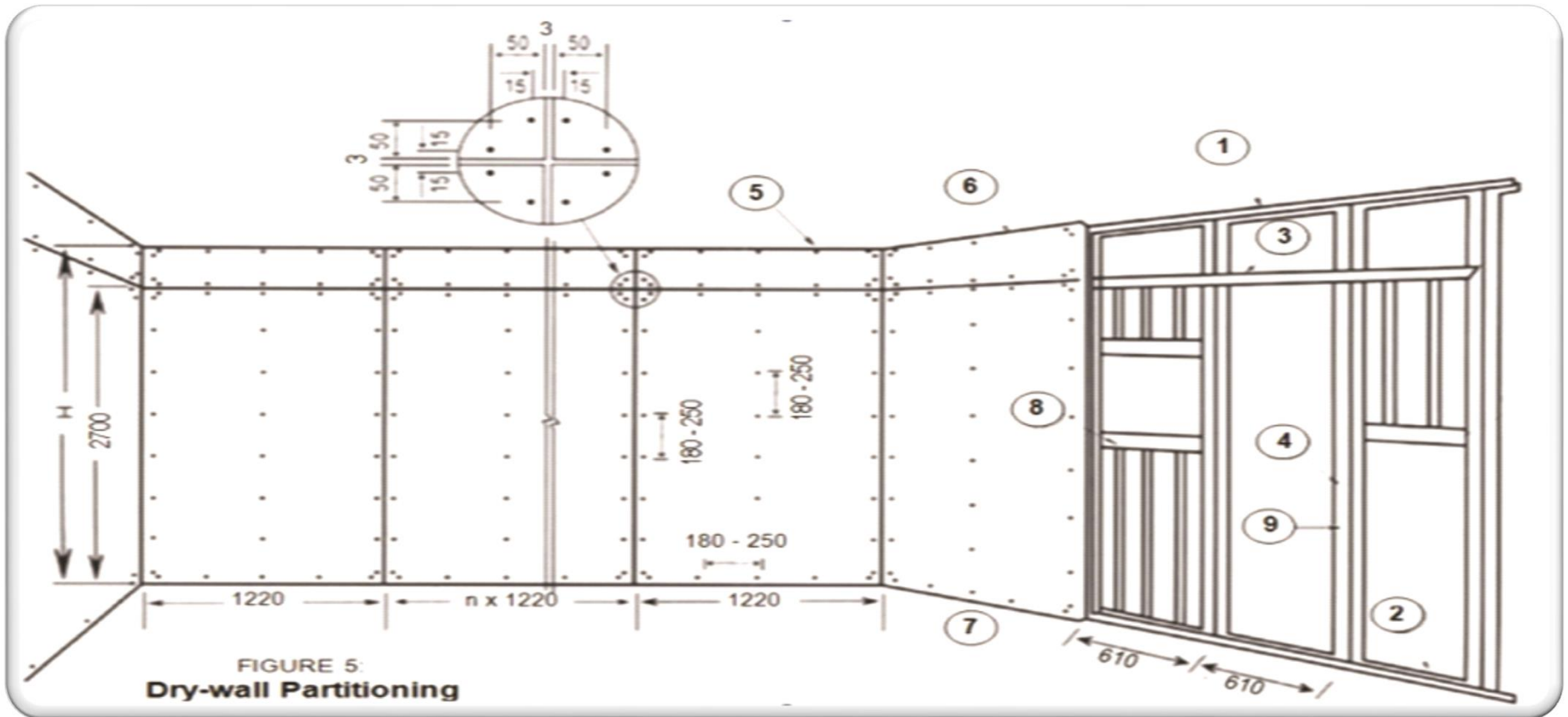
Size (mm)	Thickness (mm)	Horizontal Pallet (No. of Boards)	Vertical Pallet (No. of Boards)	20ft Container (No. of Boards)
1220 x 2440	06	120	150	1080
1220 x 2440	10	72	90	648
1220 x 2440	18	40	50	360

RPV Door Core

Size (mm)	Thickness (mm)	Horizontal Pallet (No. of Boards)	Vertical Pallet (No. of Boards)	20ft Container (No. of Boards)
900x2100	30	-	-	380



INSTALLATION GUIDE



1. Roof – Followed Keel
2. Ground – Followed keel
3. Waling keel
4. Vertical keel
5. Self – tapered screw
6. Expanding Screw
7. RPV Green Board
8. Concrete wash board base
9. Waling keel of window opening
10. Waling keel for door opening



CERTIFICATIONS



Contact US

Registered Office :

RPV Industries Pvt. Ltd.

904, K10 Grand, B/h Atlantis K10,
Sarabhai Campus, Genda Circle,
Vadodara, Gujarat 390007

Sales Office :

Office no. 49, Shri Gurunanak
Industrial Estate, Jaycoach, Western
Express Hwy, Goregaon, East,
Mumbai, Maharashtra 400063

Distribution Warehouse

Vadodara :-

RPV Industries
Plot No. 513, Savli – Manjusar GIDC,
Vadodara, Gujarat 391775

Mumbai :-

Gala 25, Nirmal Compound, Opp.
Shiv Shakti Mandir, Nr. TCI Petrol
Pump, Purna, Bhiwandi,
Mumbai, Maharashtra 421302

