



HOME of MAGNUM BOARD®
“The New Generation Building Material”
“Install It For Health-Install It For Life”

HELPING THE WORLD BUILD GREEN

Manufacturing Process Overview



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GREEN**



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WHAT DIFFERENTIATES MAGNUM BOARD® FROM OTHER TRADITIONAL BUILDING MATERIALS AND OTHER MgO PRODUCT MANUFACTURERS

- Virtually impervious to fire water and insects; does not feed mold or mildew; and, is non-toxic.
- Detail to raw materials specifications; suppliers; raw materials receiving inspection; and our inventory control process.
- Raw material inspection at time of board processing.
- In process inspection
- Final inspection
- Labelling, packing and shipping.



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MANUFACTURING MAGNUM BOARD®

- ✓ Raw material procurement
- ✓ Raw material receiving
- ✓ Raw material inspection
- ✓ Batch mixing
- ✓ Pour areas
- ✓ Production
- ✓ Trim line
- ✓ Final inspection
- ✓ Packing & shipping
- ✓ Inventory



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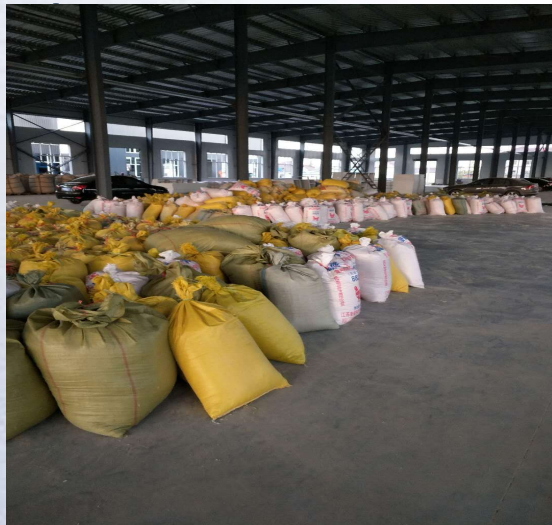
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RAW MATERIAL PROCUREMENT & RECEIVING

1. Every raw material supplier has been prequalified to MB's supplier qualification requirements.
2. Every raw material has a detailed specification with tight tolerances.
3. We are the only manufacturer we know of that uses a true FIFO inventory control system



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RAW MATERIAL RECEIVING INSPECTION

1. All raw materials are in checked to be sure they meet MB's specifications.
2. Our lab is used not only to inspect raw materials, but in process inspections and final inspections including density, moisture content and flexural Mpa strength.



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BATCH MIXING

1. We use a batch mixing process controlled by a “programmable logic controller” –(PLC) to ensure quality consistency.
2. At the beginning of every batch pour, the chemistry is checked in our lab, and once confirmed, released for production.

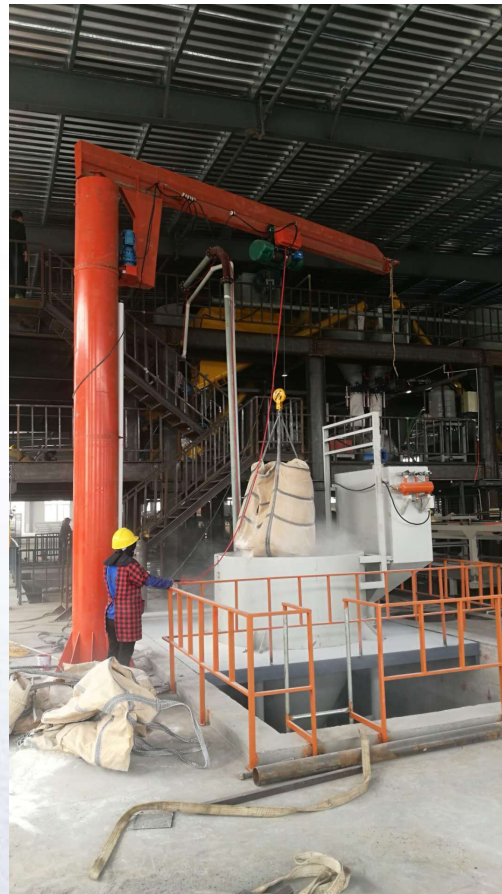


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BATCH MIXING - CONTINUED



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BATCH MIXING - CONTINUED



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BATCH MIXING - CONTINUED



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SLURRY POUR AREA

1. After the batch mixing is completed and released for manufacturing, the pour process begins on the second floor.
2. The quality control process continues Throughout the manufacturing process.
3. All manufacturing records are maintained for seven-(7) years as part of our quality control process.



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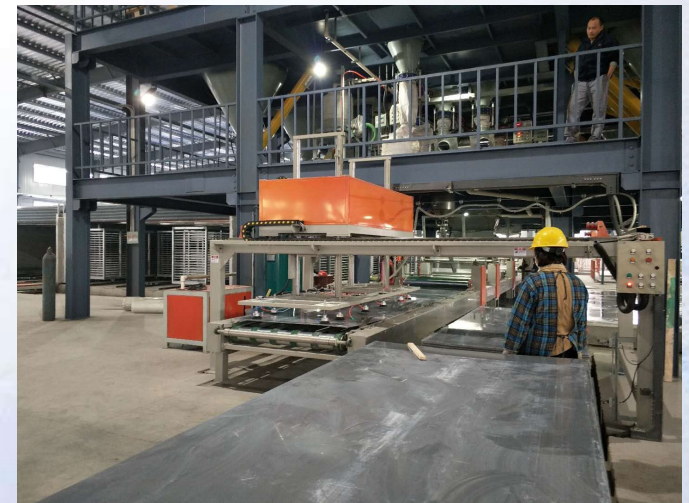
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MAGNUM BOARD® PRODUCTION

1. Our production process is a TGP design.
2. The production line is a one of a kind in the industry and is what will be installed in every plant we build outside of China



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MAGNUM BOARD® PRODUCTION - CONTINUED



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MAGNUM BOARD® PRODUCTION - CONTINUED



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MAGNUM BOARD® CURING AREA

1. After the boards are poured, they are moved to a specialized temperature controlled curing area
2. They are allowed to cure for approximately twenty-four-(24) to forty-eight-(48) or until they meet MB's first cure specifications
3. They are then removed from their plenums and allowed to final cure for up to seven-(7) days or until they MB's final cure specifications.
4. The boards are then stacked and moved to the Trim Department for final sizing.



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MAGNUM BOARD® TRIM AREA

1. After the boards are fully cured, they are run through our trim line and cut to size based on purchase order requirements.
2. IF for inventory, they are generally cut to typical US standards dimensions.
3. We typically stock only 6mm, 12mm – 4' X 8' dimensions.
4. WE do have blanket orders from some of our buyers such as New Zealand, where special sizes are required and we are starting to inventory boards for them.

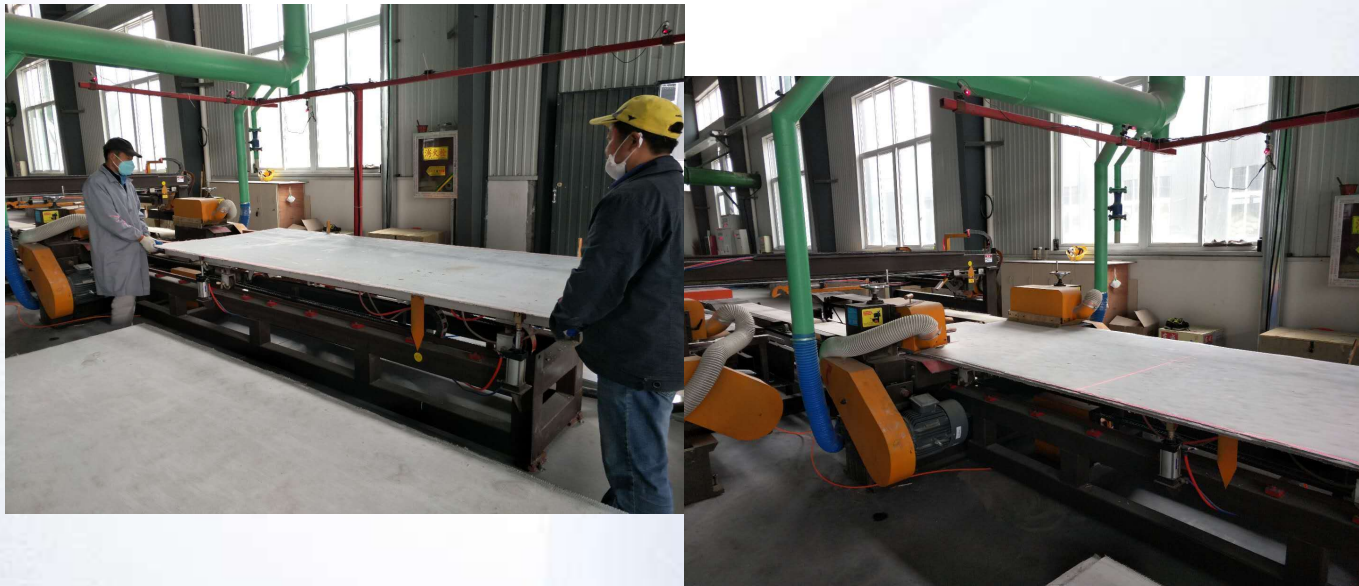


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MAGNUM BOARD® TRIM AREA – CONTINUED



5. Notice our dust control system.
6. Many plants and MgO mines have been shut down for environmental reasons.

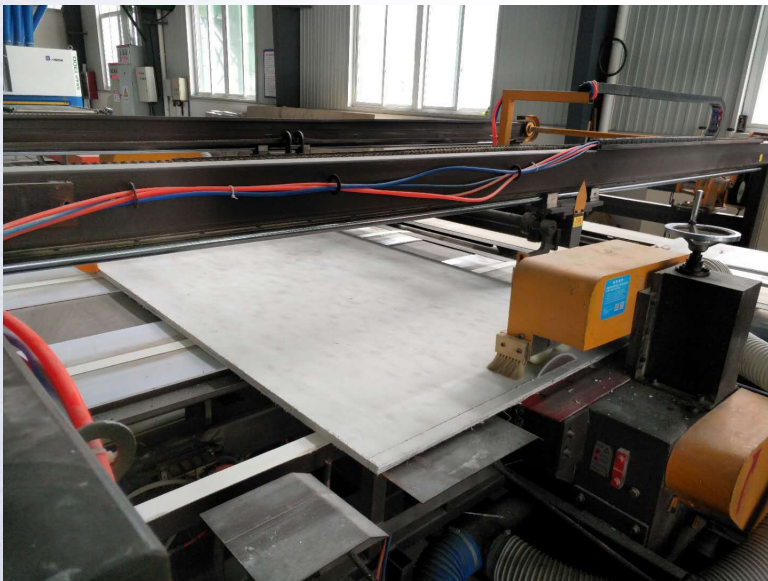


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MAGNUM BOARD® TRIM AREA – CONTINUED



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MAGNUM BOARD® FINAL INSPECTION PROGRAM

SEE HANDOUT



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MAGNUM BOARD® FINAL LABELLING

1. Following completion of the trim process and final inspection, Magnum Board is moved to our labelling section where each board is labelled in accordance with customer requirements.
2. IN addition to the name of the board *Magnum Board® being stamped on almost all of our product, for the US and Canada, the boards are stamped with the ICC-AC386 – ESR and UL stamps.
3. IF for Europe, CE
4. And if for Canada, CCMC is also stamped on the boards.
5. WE also do private labelling for some of our customers and will stamp with their chosen board name.
6. **NO PICTURES ARE AVAILABLE FOR THIS AREA FOR CONFIDENTIALITY REASONS.**



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MAGNUM BOARD® PACKING & SHIPPING

1. Our standard packing methods are so many boards per pallet and so many pallets per container depending on the size of the container and weight limitations of the country they are going to.
2. Some customers like different quantities on each pallets depending on their receiving and product management capabilities.



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MAGNUM BOARD® PACKING & SHIPPING – CONTINUED



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MAGNUM BOARD® INVENTORY



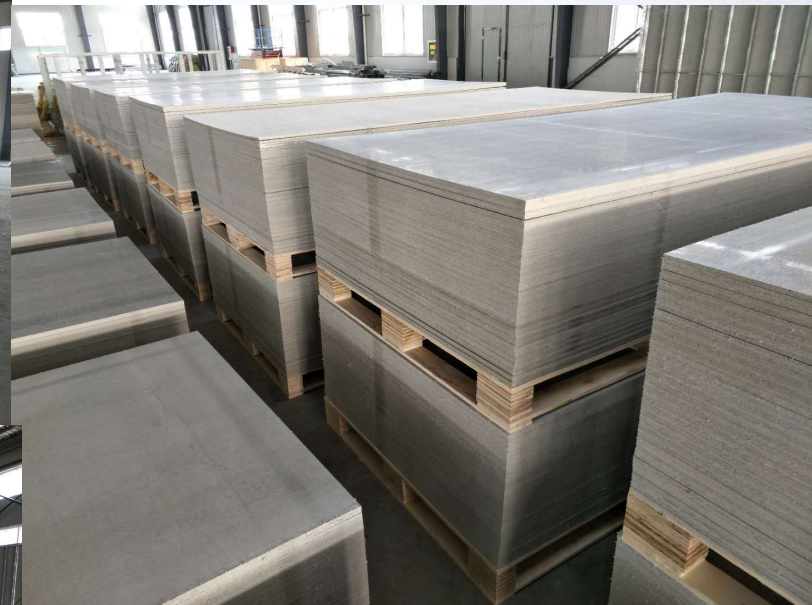
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MAGNUM BOARD® INVENTORY - CONTINUED



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WHY IS MAGNUM BOARD® THE BEST MgO BOARD?

1. A decade of intense testing conducted by MBP on its Magnum Board® products to achieve the correct chemistry - creating the finest formulation in the world today as proven by the rigorous testing that the board has been subjected to-and the resultant ICC, UL and CCMC approvals;
2. An expert understanding of the required production process to achieve the highest quality sheathing which exceed rigorous U.S. quality standards of today;



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WHY IS MAGNUM BOARD® THE BEST MgO BOARD - Continued?



3. Tremendous emphasis placed on establishing a true ISO quality control program to ensure specified quality is achieved on a consistent basis. Included in our program is:

- A. Exacting adherence to raw material specifications, Certification of suppliers and Quality Monitoring of receipt of raw materials to ensure they meet spec;
- B. Production in process and final Inspection testing;
- C. An ongoing commitment to maintaining a high level of training for labor force -specifically in the quality and production process, while continually improving our manufacturing processes by making the labor force an integral part of the production and quality improvement process.



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MAGNUM BOARD® CERTIFICATIONS

- **International Code Council: ICC-AC-386 MgO Board Acceptance Certification**

Permits Magnum Board® to be sold for the following interior and exterior residential, commercial, institutional and industrial building applications:

Interior - wallboard, ceiling board, backer board, underlayment and trim; Exterior - wallboard, ceiling board, soffits, fascia, siding and trim

- **ICC – ESR**

- Accredited third party review and confirmation that MBP has conducted and passed all testing required by ICC AC-386 standards for the applications for which Magnum Board® has been designed.

- **Underwriters Laboratory (UL)**

Certified as a Fire Wall and as Non Flammable, Non-combustible, Zero Smoke Developed and Zero Flame Spread Product.

- **Canadian Construction Materials Centre (CCMC)**

Third party review and certification that Magnum Board® has conducted and passed all requirements for CCMC certification.

- **Conformite Europeene (European Conformity – CE)**

Third party review and certification that Magnum Board® meets all class A1 fire rating code requirements for use throughout the Europe.



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WHY ARE THESE CERTIFICATIONS IMPORTANT TO CONSUMERS?

- The ICC Certification Program is the Oldest, Largest and Most Prestigious Accreditation Program for Building Products, Construction Code Administration Professionals in the World
- To become Code Council –Certified is a Significant Achievement.
- Receiving ICC approval means simply that Magnum Board® is approved for use by Government, Military, Building Industry Professionals & Major Retailers around the Globe. **These very significant markets are not available to products that do not have this certification**
- Recognized by Building Code inspectors nationwide as confirmation that Magnum Board® has been assessed against very stringent building code standards by accredited third party testing laboratories and criteria.

MBP, LLC is the First and Only Manufacturer in the World to receive the CCMC, ICC Certification and UL Certification and to exceed Test Acceptance Criteria AC-308 using US-ASTM Test Method Protocol for its MgO Board Product



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