AJN INVESTMENT & DEVELOPMENT

Innovative. Sustainable. Eco- Friendly

We are passionate about green Environment and success entrepreneurship & this reflects our business.

Our mission is to help you live a live in green Environment and economic in- dependence on your own terms: to fill your life with wealth and health through wellness.

AJN Investments & Developments 2008 Ltd. is Canadian based and since its inception, the company has been moving through several milestones to accomplish our goal of seeing AJN become a viable development company, planning, improvement and manufacturing of energy efficient, green certified buildings.

Our low-cost solution to modern construction methods has bridged the gap between building and cost. Our modern, innovative and cost saving designs will enable us to employ, build and grow teams to accommodate the ever-growing demand.

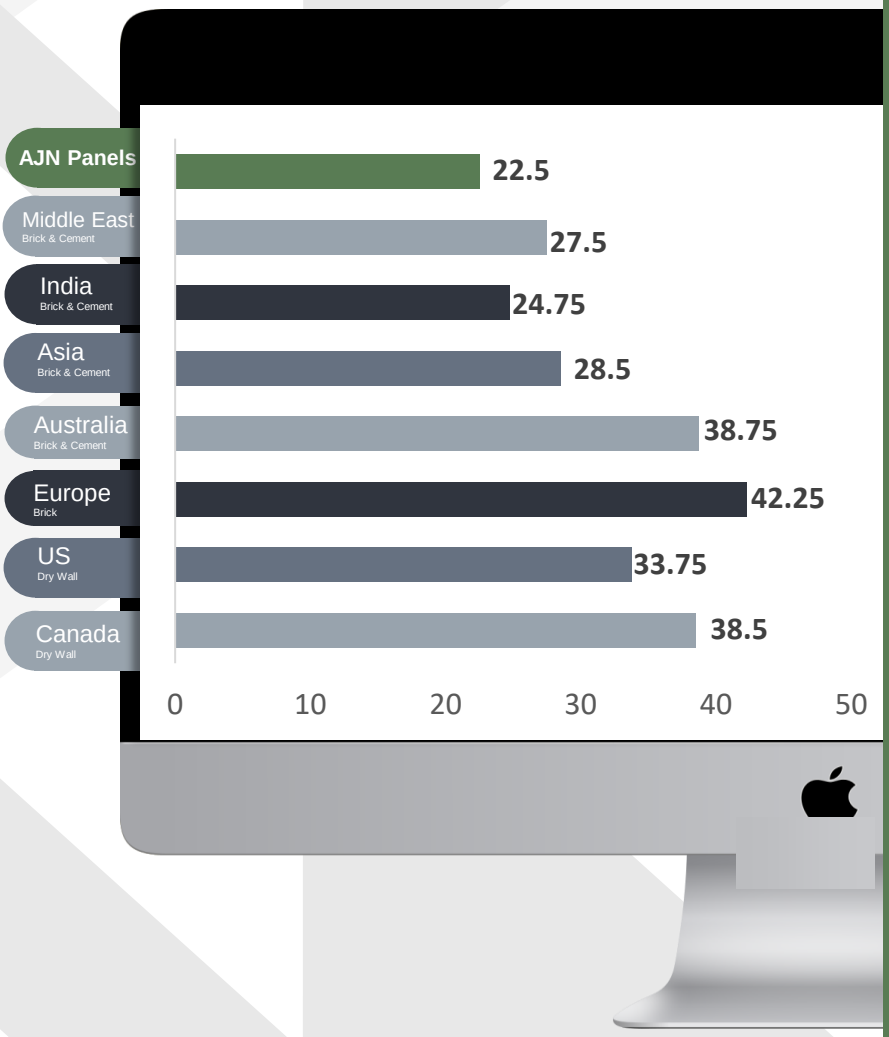
FEATURES & BENEFITS

- **Strong & Extremely Durable** Built to ISO 90012000 & Canada and USA certified standards, CANULCS102/S101&ASTME84/E119/E90/G22/E84/G21/G22/D1 761/C1288/C303/D1621/E330NFPA 286 & 1BC SECTION 803.12 and are engineered to be seismic and impact resistant. They are successfully tested in CANADA and the USA to be used for North American industry And Around worldwide
- **Fire Resistance** Rated "Class A" 3 hr. Fire Rating – R48
- **Waterproof & Mould/Mildew Resistant** Composites effectively resist both moisture penetration and the formation of condensation which is common under wet or humid conditions.
- **Eco-Friendly & Energy Efficient** Green Certified as made of 100 percent recyclable, non-hazardous materials. Reduces heating and cooling costs through superior insulation qualities.
- **Does Not Require Higher-Skilled Labor** More readily available local labour can be easily trained to erect panels under supervision.
- **Easy to Use** Panels can be decoratively covered with paint, tiles, plaster or a variety of finishes and will accept any placement of nails or screws, each capable of bearing 75-pound loads.
- **Less Installation Time** No wood framing, insulating or drywall required.
- **Offers Design Flexibility** Panels can be used to construct high-rise building.
- **Easy to Transport & Store** Panels are light-weight and rectangular for easy handling.
- **Saves Time & Money** Can erect buildings about 1/3 the time it takes using traditional building methods. Lower material cost, faster construction, less waste of time and energy and the need for less skilled labor dramatically reduces the overall cost of building by about 20% to 35%.

- AJN has secured patent in North America and around the World.
- Four times stronger than concrete walls, the sandwich panels are lightweight **energy-saving** materials comprised of a calcium/magnesium outer shell with an interior that utilizes a unique combination of fiber-reinforced cement with a mixture of polystyrene or fly-ash furthering the **strength** and **resistance** to the elements.
- Essentially, instead of the traditional method of forming and pouring walls on-site, standardized sandwich panels are manufactured in a factory, transported and then easily assembled on site.
- Wire mesh or steel re-bar can be incorporated to achieve appropriate structural strength as required for load bearing capacities
- The panels are manufactured in a standardized variety of shapes and thicknesses. Assembled like LEGO®, they can be used as interior walls, exterior walls, floors or roofing.

mohammed@ajndevelopments.com

www.ajndevelopments.com



Construction Costs comparison across Globe

Advantage of using AJN Panels saves the construction costs by, **10 % - 30 %**

It has been 50 Years, since the dry wall was invented, AJN replaces the conventional material.

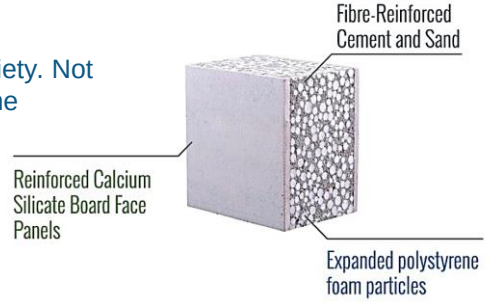
- Green, Recyclable panel made of calcium/ magnesium outer shell with a unique combination of fibre-reinforced cement interior, with a mixture of polystyrene or fly-ash.
- First class technology, Easy to clean, Pet and Rat Resistant, weather protected
- 4 Times stronger than a concrete wall
- Development in Rural community costs 30% less in construction and less Land cost as well
- 70% Panels could be recycled. It is totally Environment friendly
- AJN will the distinctive identity of a particular place that results from the interaction of many factors, including built form, people, activity and history. Key findings includes, connectivity, density, adaptability, user-friendly

Characteristics	CAN	US	EUR	AUS	ASIA	INDIA	Middle East	AJN PANELS	ADVANTAGE
Cost of Construction	38.50	33.75	42.25	38.75	28.50	24.75	27.50	22.50	10 to 30 percent
Time (days)	2	2	2	2	2	2	2	10 min	40 to 60 percent time
Mold and Fungi Resistance	NO	NO	NO	NO	NO	NO	NO	Yes	Healthy living
Fire proof Resistance	NO	NO	1 hour	1 hour	1 hour	1 hour	1 Hour	178 Minutes	Save lives and enough time to escape
Water Resistance	NO	NO	NO	NO	NO	NO	NO	Yes	Prevent water damage
Moisture proof	NO	NO	NO	NO	NO	NO	NO	Yes	Prevent Mold and fungi
Environmental Evaluation	Dust	Dust	Dust	Dust	Dust	Dust	Dust	Clean	Saves Nature
Hanging Strength Weight	NO	NO	10 KG	10 KG	10 kg	10kg	10kg	70 kg	Don't need to find special spots to hang anything
Non Toxic	NO	NO	NO	NO	NO	NO	NO	Yes	Non toxic/ harmless
Sound proof	NO	NO	32db	32db	32db	32db	32db	54db	Better Sound proof
Weight (in Kg)	54-58	54-58	69 to 78	69 to 78	69 to 78	69 to 82	69 to 78	52 to 62	Lesser weight and easy to handle

Economic Impact & Benefits

There are many different ways in which the construction industry contributes to our society. Not only does it provide us with well-designed buildings, but it also creates and maintains the infrastructure required by modern society, Including community development,

- Transport Networks
- Drainage
- Provision of services
- Flood Defences
- Create emplyment upto 200
- Housing
- Green Spaces
- Transport Hubs
- Employment
- Security



The AJN WALL PANEL

AJN lightweight energy saving panels are manufactured from EPS(Expanded polystyrene and gases), fly ash and additives. The products ranges in 10 panels varying in size, structural integrity and thickness. The variations allow for flexibility in use of the panel depending on the specific location in the building where the product is required. The panels are skinned with a fire proof calcium silicate skin.

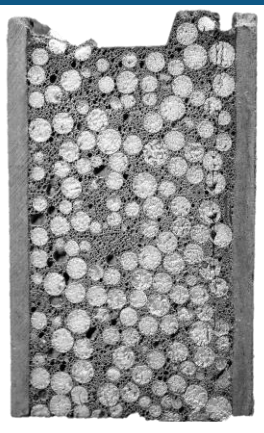
- **Panel:** Calcium Silicate Board
- **Core**: EPS, Cement & other additives
- Typical Dimensions of a panel are 610mm wide x 2270mm high
- Typical thickness are 60mm, 90mm, 120mm, 150mm, 180mm
- Density of Panel is 650 kg/m3
- Concrete compression strength minimum 5MPa

- Saves Time
- Sound-Proof - STC 52dB
- Eco Friendly
- Strong & Durable
- Energy Efficient
- Anti- Shake
- Lightweight/ Thin
- Fire-Proof
- Thermal Conductivity
- Easy to Use
- Design Flexibility
- Hanging Strength
- Water-Proof
- Easy to Transport
- Pet and Rot Resistance

	60mm Thickness	90mm Thickness	120mm Thickness	150mm Thickness
Appearance Quality & Dimensions Variation	d1=0	d1=0	d1=0	d1=0
Surface Density	56.3kg/m^2	73.2kg/m^2	92.4kg/m^2	120kg/m^2
Anti- pressure Strength	5.5MPa	8.2Mpa	3.6Mpa	4.2Mpa
Moisture Rate	3.60%	4.40%	3.70%	3.70%
Soften Coefficient	0.8	0.85	1	0.81
Anti- bending damage load	3times(No Damage)	3times(No Damage)	3times(No Damage)	3times(No Damage)
Anti- Impact performance	No cross crack	No cross crack	No cross crack	No cross crack
Single Point hanging strength	No break and cross crack	No break and cross crack	No break and cross crack	No break and cross crack
Fire proof Limit	4 Hours	4 Hours	4 Hours	4 Hours
Heat Transfer	0.1478W/(m.k)	0.1478W/(m.k)	0.1478W/(m.k)	0.1478W/(m.k)
Drying Shrinkage Value	0.3	0.3	0.3	0.3
Radioactivity- Internal Exposure Index	0.1	0.1	0	0
Radioactivity-external Exposure Index	0.2	0.1	0.2	0.2

Why AJN is right?

- Different from what is currently on the market
- Superior to what is on the market
- In a cost-conscious manufacturing and wholesale level market such as construction, it is perfect because it is a suitable and far less expensive product.
- It meets the growing trend in consumer behavior for environmentally safe construction and products



- Ideal for residential, commercial and industrial constructions such as,
- Family homes, Schools, Hospitals, Restaurants, Office buildings, Hotels, Fireproof Walls, Bathrooms, Basements, Ceilings, Garages, Building envelope

INSTALLATION PROCESS

Materials Used

- Anti-crack tape
- Cement Mortar
- Steel Bar
- Cement Adhesive
- PU Foam
- Fibre Mesh Cloth
- Anti- crack Mortar

Step by step Installation

Step 1: Setting Line

Step 2: Applying Cement Mortar

Step 3: Installing Wall Panel

Step 4: Cutting

Step 5: Correcting

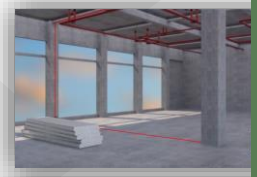
Step 6: Grouting, filling up cement mortar

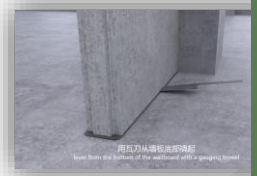
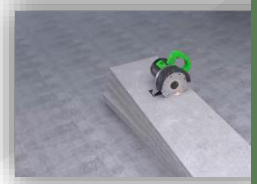
Step 7: Sticking Anti- crack tape

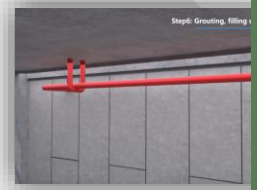
Step 8: Slotting and wiring

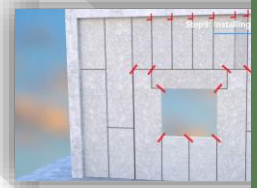
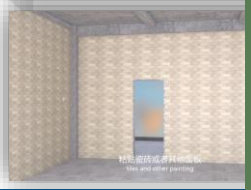
Step 9: Installing door frame and wall frame

Step 10: Installation of Tiles






RESULT SPECIFICATIONS

Based on 12.7mm (1/2 in.) thick panel

Description	Result	Standard
Bulk density	0.765g/cm3	ASTMC-1185 Section 6
Breakdown voltage (normal)	1.445psi	ASTMC-1185 Section 5
Elongation at rupture (normal)	0.65%	ASTMC-1185 Section 5
Elongation at rupture (wet)	0.90%	ASTMC-1185 Section 5
Elastic Segment (normal)	572.359 psi	ASTMC-1185 Section 5
Elastic Segment (wet)	413.474 psi	ASTMC-1185 Section 5
Combustion test – 750℃ over 56minutes for a 6mm(1/4 in.) thick panel	Non-Flammable	FTP Code annex1, part1
Combustion test – Time and distance of Combustion	Non-Flammable	ULC- 94
Standard Tests for Firewall Endurance	2H (120min)	CAN/ ULC-S101-07
Standard test methods for fire tests of Building Construction and materials	2H (120min)	ASTM E119-12
Smoke emanation and flame spread	0	ASTM E-84
Swelling rate in wet conditions over 7 days	0.25%	ASTM C-1185, section 8
Bound water concentration	16.80%	ASTM C-1185, section 10
Impact resistance	65.2 joules	ASTM C-1629, section6,4
Extraction resistance	174.8 lbf	ASTM C-1325
Thermal insulation	R=1.2	GB/T 7019-1997 (ex-USA)
Fungus/ mold	No Formation	ASTM G-21
Mold growth resistance	No Formation	ASTM D-3273
Freeze/ thaw resistance	50 cycles	ASTM C-1185, section 1,2
Weight	2.4 lb/sq.ft	11.7 kg/m2

APPLICATION

- PREFABRICATED BUILDING WALL
- STEEL STRUCTURE BUILDING WALL
- COMMERCIAL BUILDING WALL
- INDUSTRIAL BUILDING WALL
- PUBLIC BUILDING WALL
- OLD BUILDING RECONSTRUCTION WALL