

## **The future of ®ISOMAX-building construction is here for KASHMIR**

The reconstruction of the housing stock in the Kashmir valley is the need of the hour. With the winter knocking at our doors, time is not on our side at the moment. We need to be proactive and take the initiative with a construction process and technology which is thermally efficient, sustainable, cost effective environmental friendly and fast at the same time. Replenishing of the housing stock is an onerous task and a long drawn process, but this is a golden opportunity to build energy efficient and modern housing so that the much needed relief is provided to the flood affected population in Jammu & Kashmir.



*Earthquake resistant Isomax building in Japan*

ISOMAX® building system with its technologies can be boon for the housing sector in Kashmir. It is a tried and trusted system the world over for more than three decades. In fact



*Uri project Residential Colony House*

there is a housing colony right in our Valley in the Uri Hydrel Project Office & Residential Area. This was developed in the year 1990 - 91 and is still very functional and efficient. A pertinent point in this is that all the houses built using ISOMAX® building system withstood the disastrous effects of the 2005 earthquake very well.

The ISOMAX® building system is the brain child of Graduated Engineer, Physicist Edmond D. KRECKÉ, Inventor & Scientist from Luxembourg, Europe. He has been involved in the development and adoption of the building system in more than 50 countries in the world. He is the advisor to numerous national governments on the building system after having an amazing record of expertise in construction of sustainable and efficient passive housing. Mr. Krecke is the President of the Presidential Council - Berlin / Monaco / Zurich / Washington and has also been nominated by the Executive Board of the Association of German Engineers for the Nobel Prize for Physics.

The ISOMAX<sup>®</sup> system combines the components of building construction and building services equipment to provide a future-oriented, resource-saving and therefore sustainable, environmentally friendly system design. Noteworthy is its versatility and related applicability both in the design of new buildings, as well as in the general modernization of old buildings.

The ISOMAX<sup>®</sup> system promotes and allows each individual building design, both architectural and constructive planning approach, under their respective state of the art. Oriented to the building configuration stationary component prefabrication and project execution planning of the entire ISOMAX<sup>®</sup> system-building services ensures optimized and future-oriented building value at minimum standard construction cost.

With respect to local climatic conditions and general repairs of existing buildings the basic structure can be modified. In Kashmir we can have a plain cement concrete foundation and load bearing walls. The walls both internal and external can be the ISOMAX<sup>®</sup> building system. The ISOMAX<sup>®</sup> construction technology provides self-sufficient building technology. The residents will have a cost-neutral building with a health-promoting and physiologically reasonable comfort level.

**Special characteristics ISOMAX<sup>®</sup> system**

- ❖ *Optimal insulation both sound & temperature barriers*
- ❖ *Speed of construction using both precast and partially pre-cast systems.*
- ❖ *Cost comparable to convention system with added advantage of thermal comfort*
- ❖ *Solar absorber lines between roof and roof insulation possible*
- ❖ *Extension of building system technology with photovoltaic technology*
- ❖ *Pleasing and better aesthetic appearance*

The main component of the proposed system is the insulating, lightweight foamed concrete by the trademark name of BIO-POR-Beton<sup>®</sup>. BIO-POR-Beton<sup>®</sup> is cement-based concrete from natural or artificial aggregates. Pores are produced by mixing in the BIO-POR-Beton<sup>®</sup> foam and these pores make the concrete light and insulating. Special BIO-POR-generators are used for the foam preparation. The quality of the BIO-POR-Beton<sup>®</sup> is decisively determined by the foam quality.



*Isomax building under construction*

ISOMAX® International in association with some local Kashmiri engineers is working on a proposal to offer this State of the Art construction system to the people of Kashmir. They

#### **Specifications of ISOMAX® house in Kashmir**

- ❖ *Foundation: Cast in situ concrete .*
- ❖ *Super Structure: Bio-por-Beton® concrete with Polystyrene panels*
- ❖ *Wall finishes: cement plaster both sides with patented glue*
- ❖ *Ceiling: particle board lined with Polystyrene sheet*
- ❖ *Flooring: Cast –in site concrete a floating coat of cement*
- ❖ *Windows: Powder coated Aluminum including glazed and wire gauze shutters*
- ❖ *Roofing : CGI sheeting 26 gauge over tubular MS truss*

have developed a pilot plan for house with an approx. area 600 -700 sq.ft with three rooms



*Isomax building under construction*

and a bath. The proposed house shall be a load bearing structure with Plain Cement Concrete Foundation. The pilot plan can be customized to a sufficient degree and there is a potential to decrease or increase the plinth area of the proposed structure as per the availability of land and extent of the neighboring structures.

The cutting edge of this building system is the speed of construction. The complete building structure measuring about 1000 sq. ft. can be completed in less than 100 days.

Advanced Technologies of heating and cooling can be incorporated into the ISOMAX® system which will further enhance the comfort level and the energy efficiency of the buildings. These include solar heating for both water and space. Photo voltaic systems for lighting and other electrical loads of the building. Another state of the art component can be the use of thermal barriers on roof and external walls; this includes a system of flexible pipes on the walls and roof which circulate hot/cold water to enhance the thermal comfort of the building.



*Isomax Temperature barrier*

For further details please contact Managing Director, Civil Engineer