



History of the Isorast® Foam System

1951 – First Production of expanded Polystyrene by BASF AG (Germany)

1965 – The austrian Styropor pioneer Herbert Fitzek produces the local wood-concrete foam blocks for the first time out of expanded polystyrene.

1968 – A school in Berghausen / Spyer in Austria is build with the polystyrene elements of Herbert Fitzek.

1973 – Registration of the first international patent for the Isorast-Building System to Manfred Bruer / Germany. First patent 1973 number: 26 18 125

1975 – Construction of the first Isorast Home in Germany.

1980 – An German-American and a German Australian purchase the first Isorast License and introduced the technology for the first time to the United States and Australia. At the beginning of 2002 there exist in the USA 30 and in Australia about 20 different systems made out of expanded polystyrene, based on the Isorast Idea. Worldwide exist approximately 100 different systems.

1983 – The international patent for the lightest, self bearing floor beam are issued to Manfred Bruer.

1994 – As a result of re-united germany: Alone in 1994 the material for 1.000 home units were sold.

1995 – Finishing of an long-term research project together with Prof. Goesele. Elimination of the length sound transmission and resonance frequencies for interior insulation. Included in the research the measurement & testing of 50 test walls, results in 10 new patents.

1996 – Isorast initiated an international contest "**The Passive House**" for Architects and architectural Students. This contest is a guidance for architectural planing "**The New era of building with the sun**".

1997 – Construction of the **first Isorast® home in the United States** by Hurricane Homes & Construction Inc. in Cape Coral, Florida. (by Hurricane

Homes & Construction Inc. - a building company of Scientific Research Institute, Inc.).

1997 - Presentation of the new developed system "**Isorast® 2000**" with tremendous increase of sound insulation, better sound pressure and passive house elements with U-Values up to 0,11 W(m²/k), smaller increments and all thinkable solutions for "**thermal bridge free**" connections (walls, windows, doors, roll shutter)

1998 - As the first wall- building system the Isorast® System receives the **Gold medal** at the inverters exhibition in Geneva / Switzerland.

1999 - As the first building system Isorast® receives the highly recognized Certificate: "**Passive Home Approved**" from the Passive House Institute in Darmstadt / Germany.

2002 - At this time **15.000 home units** are build in **Low Energy Standard** with Isorast® and about 100 projects in **Passive House Standard**. 60% of it as Do-It-Yourself construction. With this result Isorast is the market leader with it's products for the passive home do-it-yourself market.

2003 - The production has changed to the new material "**Neopor**" from BASF. Therefor complete new machinery and a silo-system had to be installed at the production facility. The new material is no more white - it's now **light grey**. It is much more UV resistant, has a much better fire resistance and better insulation values. The 37 cm block has now an insulation value of 0,12 W/m²K).

2004 - The new ecological **Loam-Wall elements** are introduced and available. They can be installed on all exterior and interior wall sizes on the inside of the elements (18, 25, 31, 37 and 43 cm walls). The loam panels consist of so called "**healing earth**" from the leading german manufacturer. There is no additional finish to apply on those elements. Resulting in a more comfortable room climate, an constant room humidity of 56% - summer and winter and cleaner air (natural self cleaning effect). The same effect can also be performed with loam based stucco to be applied (sprayed) directly on the interior wall surface. Allergic people or person with breathing problems say after 3-6 weeks living an an Isorast® home with loam wall elements their allergies are gone and thy feel so much better in that natural balanced climate of their home.





Isorast® wall system



patented floor / ceiling system with light weight beams



Finished floor / ceiling system (le) floor beam support (ri)



concrete pouring



Slab preparation



Isorast® recycling unit



Insulation (Ext.) concrete, insulation (Int.)
breathing model – blown air goes through three layers