



Link to Good Living

\*This press release is an English translation of LIXIL Corporation's press release issued on March.15, 2012 in Japan

**For Immediate Release**

March 15, 2012  
LIXIL Corporation

**LIXIL Announces Technology Collaboration with Panel Plus of Thailand to Develop Environmentally Friendly Particle Boards for Interior Building Materials.**

*Tokyo, Japan* – LIXIL Corporation, a leading manufacturer of housing fixtures and building materials (President, Yoshiaki Fujimori; Headquarter, Tokyo), announced on the start of technology collaboration efforts with Panel Plus Co., Ltd., a leading supplier of particle board (Managing Director, Amporn Kanjanakumnerd; Headquarter, Bangkok). LIXIL and Panel Plus will begin a technology collaboration to develop bagasse boards that are friendly to environment featuring on Super E0 (F☆☆☆☆) ratings\*, high strength, light weight, moisture resistance and other advanced properties.

This Collaboration originated with LIXIL's drive to improve its technologies to be more sustainable and friendly to environment. The LIXIL Group announced its Environmental Vision in December 2011, and in support of its growing global presence, is actively promoting the Vision's obligations that should be fulfilled by companies in the housing and living solutions industry to address global environmental and energy problems:

We, the LIXIL Group, seeks by 2050 the net zero balance between a full, bountiful way of living and an acceptable burden on the earth's environment, leading the world in the housing and living amenities industry.

LIXIL has produced and marketed a vast range of building fixture and material products that promote energy and water conservation, but interior building materials still continue to be significantly wood-based raw materials. Using wood resources with care and conserving forest are important issues for manufacturers, and LIXIL has been consistently active in developing such technologies.

The search for a suitable partner sharing this vision led to Panel Plus of Thailand. Panel Plus, a subsidiary of Mitr Phol Sugar Group, has been producing particle boards from bagasse, the residue or waste from sugar production, for the past 20 years with high technology and professional management. The production process, reflecting on the determination to fully utilize natural resource by using recycle waste from its affiliated group company, makes Panel Plus the outstanding role model for environmental conservation.

The collaboration between the two companies will enhance the development of particle board to the top quality of building materials and meeting the demands of consumers not only in Asia but also

\*Super E0 is a rating that indicates the lowest level of formaldehyde emission; formaldehyde is considered to be a major cause of sick-building syndrome. F☆☆☆☆(read;F4 Star) rating is a Japanese standard.

the rest of the world. In developing nations, urbanization has increase housing construction and give rise to concern about sick-building syndrome. We hope that the new high quality particle board and friendly to environment will become the material of choice for all people, especially those who are concerned about good health and comfortable living.

**About Panel Plus Co., Ltd.**

Panel Plus is a subsidiary of Mitr Phol Sugar Group, the world 5th largest sugar production capacity and Thailand’s leading sugar producer and exporter. The company has been established since 1990 to produce particle board with high technology and friendly to environment, using bagasse left from sugar production as the main materials.

In 2004, Panel Plus acquired a particle board production line in Hatyai (Songkhla province) using overage rubber woods as raw material. Recently, the company has established new lines of production to produce melamine impregnated paper and melamine faced chipboard to serve customers both in domestic and overseas markets.

The company’s total production capacity for plain particle board stands at 350,000 cubic meters and the total production of melamine impregnated paper at 23.5 million square meters.

Company Name:	Panel Plus Co., Ltd.
Established Since:	1990
Manufacturing Sites:	Chaiphaphum Province (bagasse board production) Songkhla Province (rubber board production) Samutsakorn Province (melamine face chip board production)
Number of Employee:	720
Ownership:	100% Thai Nationality
Website:	<a href="http://www.panelplus.co.th">www.panelplus.co.th</a>

**Bagasse board**

Bagasse is the residue left from sugar production. Adhesives and other ingredients are added to the bagasse fiber, then compressed to form a board. Similar to particle board made from rubber wood residue, it is used for furniture and interior building material.



Example of finished product; after coating, used in many interior building applications.

