SSYX, a leading German manufacturer, is currently promoting its innovative DuroBoard – a new base plate with laminated wood core and polyurethane casing – for the concrete block industry.

Developed in co-operation with Bayer Material Science, the new product is being promoted as a viable alternative to base plates of solid wood or thermo-set plastics that have till now been used for the manufacture of concrete products.

The new DuroBoard consists of a dimensionally-stable, non-distorting LVL (laminated veneer lumber) laminated core and a wear-resistant casing of Baydur polyurethane, a registered trademark of Bayer. The product has been developed in co-operation with Bayer Material Science, the world's leading manufacturer of polyurethanes.

"The development of this brand new base plate is the result of our decades of experience in the production of concrete products," says Zum Kögelsborn, a spokesperson for Assyx.

Kögelsborn adds: "DuroBoard is the result of intensive, objective-oriented co-operation in polyurethane plastic technology, concrete product production, synthetics, system technology and wood processing with extensive tests carried out in the technical area of Bayer Material Science.

The new improved DuroBoard offers several beneficial features to the concrete industry.

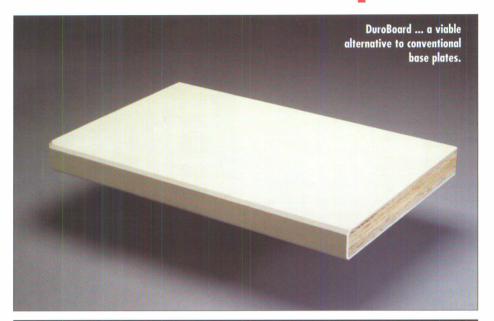
# Material mixture

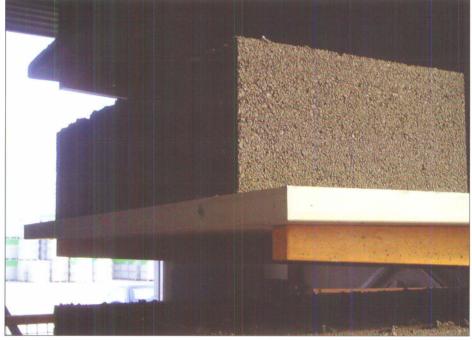
The special demands of concrete goods production are fulfilled by DuroBoard, thanks to its unique material mixture. The LVL laminated core is made of long-fibre pinewood. Three cross-bonded layers made of 2.5-mm-thick single layers offer flexural strength with a modulus of elasticity of less than 11,000 N/cu mm.

The LVL laminated core is encased with the Baydur polyurethane. The impact-resistant and extremely hardwearing polyurethane surface encloses the laminated core on all sides and protects it against external influences. At the same time this creates an absolutely waterproof and oil-resistant surface that also allows the use of parting agents and reduces cement adhesions to the minimum. Swelling, uneven surfaces or decaying are prevented. The all-round protection makes the DuroBoard ideal for use in drying chambers with vapour systems as well as in regions with high air humidity and high ambient temperatures.

The smooth, pore-free and UV-resistant

# Assyx promotes innovative base plate





surface of polyurethane is the basis for an optimum resistance and long service life. In conjunction with the ideal vibration transmission, thanks to the extremely rigid LVL laminated core, concrete products can be produced with a smooth underside, high compressions and constant height accuracy. This also greatly reduces the costly reworking of product undersides during finishing such

as grinding or milling when manufacturing concrete products.

### Suitability

"Available in all common formats, DuroBoard is only slightly heavier than a solid wood board of the same dimensions and around half the weight of a base plate of thermo-set plastic of the same size. The systems configuration does not have to be adjusted following a change from solid wood plates to DuroBoard.

"The low weight helps save transportation costs during delivery. The use of DuroBoards in the production process itself also makes it easier to handle the plates because of their lower weight," points out Kögelsborn.

## Quality control

The prefabricated laminated cores are stored in a dry place at a constant temperature. Before further processing they are checked for flexural strength and dimensions within the scope of permanent quality controls, whereby they have to comply with the strictest of tolerances. The polyurethane used to encase the laminate core is subject to the strict quality controls of Bayer Material Science.

The laminated core is coated in ultra-modern, automatic plastic coating machines that are charged and unloaded by robots. The patent pending method for a homogeneous casing of the laminated cores with the Baydur polyurethane guarantees a uniform thickness of the plastic surface so that there



are no differences in height between individual base plates.

# Return guarantee

Only renewable plantation timber is used to manufacture the LVL laminated core. The environment-oriented product philosophy of Assyx also includes a return guarantee, which warrants that all DuroBoard users can return those base plates that are no longer in

use free of charge for recycling and disposal if they have been delivered for free.

Established in 2005 in Andernach, near Frankfurt in Germany, Assyx with Bayer Material Science as a cooperation partner, currently stands for groundbreaking solutions in the global concrete block industry, with a yearly production capacity of 260,000 production boards.

Reader Enquiry No. 37

