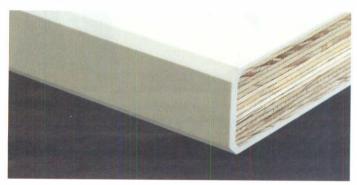


## **DuroBOARDs**

# Improved Quality and Increased **Profitability**

Assyx GmbH & Co. KG was founded in 2005 by successful and experienced entrepreneurs of the concrete industry and concrete machine industry with Bayer Material Science AG as a cooperation partner. Assyx's factory with most modern and highly automated production is in the center of Germany, near Frankfurt. The company has now a yearly production capacity of 260.000 boards for block, tile and paver making machines.



DuroBOARD, New Base Plate with Laminated Wood Core and Polyurethane Casing for the Concrete Block Industry

Base plates of solid wood or thermoset plastics have to date been used during the manufacture of concrete products. The form of Assyx can now offer a further alternative that has been developed in co-operation with Bayer MaterialScience. The development of this brand new base plate is the result of decades of experience in the production of concrete goods. The new DuroBOARDs is a base plate consisting of a dimensionally stable, non-distorting LVL laminated core and a wear-resistant casing of the polyurethane Baydur®. (Baydur is a registered trademark of Bayer AG, Leverkusen).

#### Material Mixture for Optimum Exploitation of the Individual **Material Properties**

The special demands of concrete goods production are fulfilled by DuroBOARDs thanks to the unique material mixture. The LVL laminated core (Laminated Veneer Lumber) is made of long-fiber pinewood. Three cross-bonded layers made of 2.5 mm thick single layers offer flexural strength with a modulus of elasticity of > 11,000 N/mm<sup>2</sup>. The LVL laminated core is encased with the polyurethane Baydur, which has been specially developed by Assyx in cooperation with Bayer MaterialScience especially for this purpose.

impact-resistant and extremely hard-wearing 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 an unavoidable minimum. Swelling,



uneven surfaces or decaying are prevented. The all-round protection makes the DuroBOARDs ideal for use in drying chambers with vapor systems as well as in regions with high air humidity and high ambient temperatures.

The smooth, pore-free and UV-resistant 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 with a smooth underside, high compressions and constant height accuracy can be produced. This also greatly reduces the costly reworking of product undersides during finishing such as grinding or milling when manufacturing concrete products.

#### Suitable for All Concrete Paving and Building **Brick Production Plants**

DuroBOARD is available in all common formats. It is only slightly heavier than a solid wood board of the same dimensions and only around half the weight of a base plate of thermoset 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.

### Quality Control in the Production of DuroBOARDs

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 MaterialScience.

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 polyurethane Baydur guarantees a uniform thickness of the plastic surface so that there are no differences in height between individual base plates.

#### **Environmentally-compatible Return Guarantee**

Only renewable plantation timber is used to manufacture the LVL laminated core. The environment-oriented product philosophy of Assyx also includes the Assyx return guarantee. This 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.

ASSYX begins in this year with the introduction on the market of the Duroboard in the middle east area.

They will be present in the BIG 5 show in the German Pavilion - Booth No: ZABEEL C 25. ■

تقدّم بشركة Assyx الألمانية DuroBOARD لوح الأساس الجديد المركّب من صفائح خشب الصنوير المنشور مع غلاف متين مصنوع من الPolyurethane Baydur المطوّر بالتعاون مع Polyurethane كالمعاون مع علاقة من العالم المعاون مع علاقة من العالم المعاون المعاون مع علاقة المعاون المعاون مع علاقة المعاون المعاون مع علاقة المعاون Material Science خصيصاً لهذا الغرض. ويساعد غلاف ال Polyurethane على حماية الداخل من العوامل الخارجيّة، كالماء والزيوت والأشعّة ما فوق البنفسجيّة، وعلى ضمانة متانة طويلة الأمدّ للوح الأساس المستعمل في صناعة القوالب الإسمنتية،

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