
Lightweight stage sections thanks to polyurethane sandwich composite

Back complaints resulting from heavy lifting could soon be a thing of the past as the Dutch company Triple-E Lichtgewicht Meubilair B.V. in Winsum is now offering lightweight stage sections under the name “Flax-Deck” with external dimensions of 0.75 by 1.50 meters and a weight of only 16.5 kilograms. The low weight of the stackable and compact sections is due to a sandwich structure based on the Baypreg® polyurethane spray system from Bayer MaterialScience.

Generally lightweight and extremely stiff

Composite sandwich materials are generally lightweight and extremely stiff. The highly versatile stage sections consist of a light rigid foam core reinforced top and bottom with flax mats to absorb tensile forces, thereby increasing the strength of the composite. The sandwich structure can withstand a concentrated load of up to 150 kilograms. Its surface is protected by a highly abrasion-resistant and robust plastic layer.

Excellent adhesion

During production, the fiber mats made out of natural flax are first impregnated on both sides with the dual-component polyurethane system using a spray process. The mats and the expanded polystyrene (EPS) core are then put together to form a sandwich and inserted into a preheated mold. This highly economical, one-step production process creates a permanently stable, extremely robust and rigid structure capable of withstanding high mechanical loads. This is due in no small measure to the polyurethane system’s excellent adhesion to various materials.

For more information, please contact:

ISOPA - European Diisocyanate and Polyol Producers Association
Av. E. Van Nieuwenhuysse Laan 4, Box 9
B-1160 Brussels
Tel: +32 2 676 74 75
Fax: +32 2 676 74 79
E-mail: main@isopa.org