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LAMINATE FLOORING MARKET

The international magazine for designers and manufacturers of panel based furniture and interiors

ELESGO®

THE LEADING ELECTRON BEAM CURED SURFACE FOR HIGHEST DEMANDS



ELESGO®-laminates are produced to customers demand and have many advantages for the following industries:

- Window sills
- Laminate flooring
- Wall and ceiling panels
- Furniture cabinets
- Worktops
- Interior doors and frames
- Profiling
- Mouldings



We create your surface

Please find more information on www.laminate.de or get in contact with us directly

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Wilhelm Taubert is the owner and managing director of DTS Systemoberflächen GmbH, based in Möckern, Germany, and has been working on the latest technology of cross-linking electron beams since the 1970s and is now a recognised specialist in the sphere of the electron beam hardening of acrylate resins

Riding on an electron beam



Elesco surfaces are processed by well-known industrial companies in Germany and further afield and are used in the following fields of application: laminate flooring, wall and ceiling panels, furniture surfaces, interior doors and door frames, window sills, furniture sections and work surfaces for kitchens



Mr Taubert developed a process at the end of the 1980s which enabled him to manufacture decorative surfaces using electron beam technology. Many of the properties of this technology were far superior to surfaces that had been available up to that time.

Using the new process, he succeeded in manufacturing multi-layer laminates in a single working process in an environmentally-friendly and energy-saving manner without using any solvents.

By using low energy electron beams, radicals are formed from monomeric acrylate resins. These combine with other acrylate resin molecules in milliseconds to form a fully cross-linked, macro-molecular acrylate resin polymer – that is, one that has been hardened.

The reaction takes place exothermally, which means without any additional supply of heat. The exact dosage of electron beams allows the hardening process to take place without using any pressure or heat. The acrylate resins used are free of solvents and formaldehyde.

By using acrylic resins, even the smallest nuances in decorative prints are reproduced. The degree of brilliance in the optical reproduction, especially in the super gloss area, is said to be unique, particularly with dark patterns. But the haptics – the feel when touching the surface finishes – are also very special.

The surfaces feel warm and are soft and pleasant to the touch. This is due to the low level of thermal conduction in the acrylic resins which are used. A cohesive surface structure is created as a result of the complete cross-linking and the finish is not only highly resistant to water and chemicals but can also be cleaned very easily.

Since the cured acrylic resin is not affected by light (whether visible sunlight or UV radiation) the colours do not fade or change. This property, together with the product's excellent physical performance, means that Elesgo surfaces are also ideal for external application.

As a result of using this proprietary technology and a range of release foils, DTS is able to provide the complete gamut of surface fin-

ishes from 'dull matt' to 'super gloss', together with different structures.

The company does not only produce various wood, stone and imaginative patterns, but also pigmented single-coloured laminates, including those with soft-touch finishes.

The original Elesgo technology allows DTS to manufacture various degrees of quality ranging from flexible coating foil for furniture and coatings to surfaces with the highest abrasive quality for work areas in kitchens and laminate flooring.

The patented process is the result of many years of development. After being introduced to the market almost 10 years ago, the continuous growth in sales of these products has proved that electron beam curing of resin coated surfaces has major advantages in comparison with traditionally manufactured finishes with melamine resins.

A new production facility was set up in Möckern near Magdeburg, Germany, in 1997 in order to fulfill the ambitious aim of integrating the development in an industrial manufacturing process. It was possible not only to gain a market improvement in technical properties (in particular scratch and abrasion resistance) but also to improve the look and feel of the surface.

Using the Elesgo brand name, which is already well-known in specialist circles, approximately nine million m² of electron beam-cured decorative surfaces are manufactured for a variety of applications every year, using three electron beam units. The site now employs more than 50 staff.

The Elesgo surfaces are processed by well-known industrial companies in Germany and further afield and are used in the following areas: laminate flooring, wall and ceiling panels, furniture surfaces, interior doors and door frames, window sills, furniture sections and work surfaces for kitchens.

Elesgo is supplied in rolls and, depending on the quality required, can be processed on all conventional coating and roll laminating units and intermittent presses with various gluing systems. 