

Product data sheet

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dekobond

HPL with glass

Product Description

dekobond is an completely new composite product. Due to a combination of design and performance the material is ideally suited for usage in internal construction, exhibitions and the furniture industry.

The product is a sandwich construction using a sheet of glass which is bonded to a high pressure decorative laminate using a transparent highly elastic plastic foil. Should the glass sheet break, the safety foil ensures that, the glass fragments remain bonded to the laminate. This gives a high degree of safety which is comparable with a car windscreen.

The glass can be a float glass of various thicknesses and colouration. The minimum thickness of the glass used is 4 mm. In applications where a high thermal and mechanical demands are placed on the product a single sheet safety glass (toughened glass) can be employed. The minimum thickness of the sandwich construction is 5 mm.

Application / Customer usage.

Due to it's hard and high gloss surface and the high mechanical stability of the glass, **dekobond** is especially suited for use where a brilliant optic is required. This combines a high degree of compatibility with cleaning agents and a high chemical and mechanical resistance of the surface. Further with the optic **dekobond** offers new openings. With the 4 mm thick sheets of clear glass many and various constructions can be obtained giving 3 dimensional effects which cannot be achieved when using layers lacquers of similar thicknesses.

The uses are unlimited and range from wall cladding and corpus of kitchen cupboards to separating walls, flooring in rooms, shower cabins, tables and doors.

Dimensions and quality.

dekobond is supplied in standard sizes which make further treatment by the customers unnecessary. The edge construction is as required by DIN 1249. Depending on the application and the optical demands the edges can be further trimmed, sanded or polished whereby various structures can be obtained.

A speciality of **dekobond**-laminates is a construction employing a surface sheet of single sheet safety glass (ESG). It is not possible to machine this material as this would result in breakage in the glass. This product can be employed where constructions are required where a high flexural strength along the material is required or where the glass is exposed large differences in temperature. These laminates are available on request and have a DIN symbol stamped on the glass as is customary for pre-stressed glass.

Maximum usable surface available, at present, is 1,200 x 2,400 mm.

The thickness of the laminate is dependant on the intended usage. The static requirements are here the deciding factor for thickness of the glass sheet. These are also mainly dependant on the tensile strengths of the type of glass used. The value for floatglass is about 15 N/ mm² and for single sheet safety glass about 50 N/mm². The forces which are acting on the glass and could deform it, determine the thickness of the glass sheet to be used. The following are guidance for **dekobond** laminates: there should be no effective weight on the **dekobond** laminate. This is the case when the laminate is bonded to a rigid supporting sheet or vertically in a frame where the laminate is fully supported free of tension. (e.g. a 4 mm float glass can be used when supported in a doorframe). In separating walls possible static tensions must be taken into consideration.

Handling

dekobond-laminates are delivered in the usual way as glass products and when turning over horizontally they must be fully supported. The usual conditions for handling glass must be here observed. (See the recommendations of Hadamar)

Further when handling the laminates care must be taken that the edges must be

protected when being placed on the hard flooring e.g. concrete. This could lead to

edge damages which could later result in breakage.

When treating the **dekobond** laminates extreme care must be taken that the glass does not come in contact with steel (tools) or other hard materials such as glass. This also can lead to damages which result later in breakage.

Storage

dekobond must be stored in a dry room and protected against exposure to weather and sunlight.

Further handling.

dekobond is always produced in standard sizes. A further handling (e.g. drilling etc) by the customer is possible. This however eliminates all guarantees of the manufacturer.

When laminates are manufactured using single sheet safety glass a further handling cannot take place.

When bonding to a full surface substrate care must be taken that the laminate is not permanently deformed.

When the laminate is bonded or sealed, the customer alone is responsible for the choice of the individual material employed. Single component silicone products are not suitable as sealing agents. EPDM profiles must be also tested in advance for their suitability. Further the manufactures of the sealing agents employed must be consulted by the customer before usage

We recommend a sufficient elasticity and dimensioning of the glue layer in order to compensate any tension, which could result due to different expansions and contractions in the laminate and substrate.

Generally the edges of the **dekobond** laminate must be protected against permanent contact with moisture.

Should you have any questions, please do not hesitate to contact our service department. If you need samples you can order these in the form of chains, A5 from Dekodur®.