



PRODUCT DATA SHEET

EGGER | EUROFORM® Flex laminate

EUROFORM® Flex laminate is a decorative laminate based on curable resins. The laminate has a multiple layer structure and consists of melamine resin impregnated décor paper and phenolic resin impregnated core layers. EUROFORM® Flex laminate is highly flexible due to the use of special materials. Depending on the area of use and requirements, a special overlay may be applied to the décor side.

USES/AREAS OF APPLICATION

Due to its highly flexible properties EUROFORM® Flex laminate is used for work surfaces, furniture fronts, window ledges and counters with specific profile requirements.

STORAGE/FABRICATION

STORAGE

We recommend storage in closed, dry rooms, in original packaging, lying on a pallet (approx. 20°C and 55 to 65% relative humidity). If the packaging is opened and the EUROFORM® Flex laminate is not immediately bonded to a substrate, we recommend it should be suitably covered. EUROFORM® Flex laminate will retain its postforming properties if stored correctly for up to 6 months.

FABRICATION

Can be bonded onto substrates such as chipboard, MDF, HDF, plywood panels, core boards and veneer boards.

Can be bonded using conventional urea resin glue and dispersion adhesives in presses [flat, short cycle and twin presses] using either hot or cold processes. To ensure successful fabrication, we recommend that EUROFORM® Flex laminate and the substrate are conditioned in normal, temperate environments.

Wood-based materials such as coreboards and veneer boards require special care and press tests should be carried out before series production. Note that coreboards and veneer boards do not attain the same homogeneous structure of chipboards due to the use of veneer and/or solid wood. Constituents such as veneer and/or solid wood do not attain the uniformity of dimensional changes in fluctuating climatic conditions that can be guaranteed with chips. However, a flat and tension-free coreboard is a basic prerequisite for a smooth surface, therefore coreboard calibration and a wood moisture content test (indoor application 8 %) must be carried out. Materials that are worked with while they are too moist tend to shrink over time, which may lead to cracks and warpage. When using Multiplex boards, veneer boards made of softwoods (e.g. poplar, birch, okoume, abachi) are most suitable. In the case of coreboards, laminated veneer with short strips and softwood-surface layers should be used to avoid surface irregularities.

Refer to the leaflet "EUROFORM® laminate processing instructions" for more information. Please follow the machinery and adhesive suppliers' instructions.

EN_03/08_1/5

STOCK PROGRAMMES

EUROFORM® Flex laminate is order-specific and is produced subject to a minimum order quantity of 260 m² per décor and delivery lead-times.

QUALITY FEATURES/TECHNICAL DATA

The laminate properties according to EN 438:2005 are determined by the application. According to EN 438:2005, EUROFORM® Flex laminate can be classified as a class F (postforming) laminate. With regard to its loadability, laminate type P can be differentiated as follows:

- Medium resistance **VGP** – **V**ertical **G**eneral-purpose **P**ostforming
- High resistance **HGP** – **H**orizontal **G**eneral-purpose **P**ostforming
- Very high resistance **HDP** – **H**orizontal **H**eavy-**D**uty **P**ostforming

The VGP, HGP and HDP categories lay down the minimum requirements for laminate quality characteristics (application classes) and state that the laminate can be used for horizontal and/or vertical applications with postforming requirements. The following table shows the standard requirements needed for abrasion, scratch and impact resistance.

Requirement	Classification in accordance with EN 438-3:2005		
	Medium resistance index 2 - VGP	High resistance index 3 - HGP	Very high resistance index 4 - HDP
Abrasion resistance Starting abrasion point [revolutions]	≥ 50	≥ 150	≥ 350
Finishing abrasion value [revolutions]	≥ 150	≥ 350	≥ 1000
Impact resistance With a small ball bearing [Newton]	≥ 15	≥ 20	≥ 25
Scratches Scratch resistance [Grade]	2	3	4
Applications	Kitchen doors, office and bathroom furniture, frames and furniture components	Kitchen worktops, restaurant and hotel tables, door and wall cladding with high traffic	Counters, flooring boards with special coreboard

RESISTANCE TO SURFACE ABRASION

Quality feature abrasion [Overlay types]	Result		Index *)	Standard
	Initial point IP [Revolutions]	Wear Resistance Factor [IP+FP]/2 [Revolutions]		
No overlay [Fantasy and Woodgrains]	< 50	≥ 50	-	-
No overlay [Uni colour and white]	≥ 150	≥ 350	3	EN 438-2:2005
K- and O-Overlay	≥ 150	≥ 350	3	EN 438-2:2005
X-Overlay	≥ 3,500	-	4	EN 438-2:2005
V-Overlay	≥ 4,000	-	AC4	EN 13329

EN_03/08_2/5

RESISTANCE TO IMPACT STRESS WITH A SMALL BALL BEARING

Laminate thickness [mm]	Unit	Result	Index	Standard
0.4 to 0.5	Newton	≥ 15	2	EN 438-2:2005
0.6 to 1.0	Newton	≥ 20	3	EN 438-2:2005
1.1 to 1.2	Newton	≥ 25	4	EN 438-2:2005

SCRATCH RESISTANCE

EN 438:2005 quotes scratch resistance in degrees. The extent to which the laminate displays evidence of wear and scratch marks is determined by its surface properties and colour. In test procedure 25, scratch resistance is determined by the lowest weight applied to a diamond tip that is required to produce an intermittent scratch, slight polishing mark or a continuous, clearly visible scratch. This lowest weight defines the rating using a scratch-resistance rating scale. The EN 438:2005 rating scale is shown below in order to throw more light on the testing process.

Valuation grade	Intermittent scratching, slight polishing marks or no visible marks	Up to 90% continuous, clearly visible scratches
Grade 5	6 Newton	> 6 Newton
Grade 4	4 Newton	6 Newton
Grade 3	2 Newton	4 Newton
Grade 2	1 Newton	2 Newton
Grade 1	–	1 Newton

Essentially, scratch resistance is determined by the surface texture, as generally speaking wear and scratch marks are not as visible on textured surfaces as they are on smooth surfaces. The choice of decor is also important, as light colours are better in this respect than dark ones and printed decors usually better than uni colours. Summary: scratch resistance can be affected by the choice of certain combinations of textures, surface colours and decors. An extract from the EGGER texture options is shown below.

Texture		Result	Index
Texture Name	Texture Number	Scratch resistance in accordance with EN 438-2	
Semi Matt	SM	3	3
Diamond	ST2	3	3
Woodpore	ST3	3	3
Perfect Matt	ST9	3	3
Office	ST15	3	3
Matex	ST22	3	3
Fine Pore	ST24	3	3
Elegance*	ST70	3	3
Topface*	ST72	3	3
Granito*	ST82	3	3

*] Textures are only available with EUROFORM® products

Further quality characteristics

Quality feature	Unit	Result **)	Standard
Resistance to dry heat *	Grade	4	EN 438-2:2005
Resistance to water vapour *	Grade	4	EN 438-2:2005
Resistance to staining group 1 and 2	Grade	5	EN 438-2:2005
Resistance to staining group 3	Grade	4	EN 438-2:2005
Lightfastness (Xenon arc lamp)	Grey scale	4 - 5	EN 438-2:2005
Resistance to cigarette burns	Grade	3	EN 438-2:2005

* Values may be lower for full pearlescent decors and therefore these decors are not recommended for horizontal applications.

Postforming properties

EUROFORM® Flex laminate can be postformed in a longitudinal direction. The radii shown below can be achieved on printed decors depending on the nominal thickness of the laminate and assuming a standard overlay (K or O) is used.

Nominal thickness 0.40 to 0.50 mm smallest radius ≥ 3 mm.

Nominal thickness 0.60 to 0.80 mm smallest radius ≥ 5 mm.

Nominal thickness 0.90 to 1.20 mm smallest radius ≥ 8 mm

These radius figures cannot be taken for granted in the case of highly abrasion-resistant laminates with X or V overlays.

FIRE BEHAVIOUR

EUROFORM® Flex laminate meets the requirements of interior fittings regarding fire behaviour. When in contact with fire, EUROFORM® Flex laminate does not soften, melt or burn and is non drip-forming. EUROFORM® Flex laminates do not contain chlorine or halogens and therefore prevent consequential fire damage such as corrosion to machinery and buildings.

THICKNESS/FORMAT/TOLERANCES

Nominal laminate thickness [mm]	Format in which supplied		Thickness tolerance [mm]	Length tolerance* [mm]	Width tolerance [mm]
	Roll	sheets			
0.4	•	•	± 0.08	+10/-0	+10/-0
0.5 bis 0.7	•	•	± 0.10	+10/-0	+10/-0

* Length tolerance applies exclusively to laminate formats and not for roll goods.

Format in which rolls are supplied

Minimum length: 400mm

Maximum length: 1,300mm

Maximum width: 1,300mm

Width cross cuts: max. 3 cross cuts, minimum laminate width 200 mm;

Please note: 5 mm waste per cross cut

Core diameter: 150 mm

EN_03/08_4/5

Format in which sheets are supplied

Minimum length:	800 mm
Maximum length:	5,600 mm
Maximum width:	1,300 mm
Width cross cuts:	max. 3 cross cuts, minimum laminate 200 mm; Please note: 5 mm waste per cross cut

CARE AND CLEANING RECOMMENDATION

Due to their resistant, hygienic and dense surface, EUROFORM® Flex laminates do not require any special form of care. Generally, the surfaces are easy to clean. This also applies to textured surfaces.

- *) Index 2 represents medium resistance. Laminate is therefore suitable for applications such as kitchen frontal elements, office and bathroom furniture.
- Index 3 represents high resistance. Laminate is therefore suitable for applications such as kitchen worktops, counter and table tops.
- Index 4 represents very high resistance. Laminate is therefore suitable for applications such as floors.
- ***) Explanations of the results are available upon request. Please contact us for further information.

Refer to the leaflet "EUROFORM® laminates - recommended approaches to cleaning and usage" for more information.

The information given in this data sheet is based on practical experience and in-house tests and corresponds to our current level of knowledge. It is designed to inform and does not contain any guarantee in terms of product properties or their suitability for certain uses. As a general rule, our Terms and Conditions apply.