

Processing instruction

EGGER ABS Seamless Edging



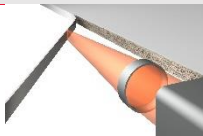
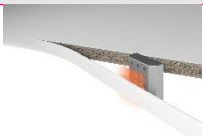
Material description

EGGER ABS Seamless Edging is a thermoplastic edging with protective and aesthetic properties for finishing narrow areas on wood-based materials. EGGER ABS Seamless Edging is made from ABS (acrylic-nitrile-butadiene-styrene-copolymer). The color-matched functional layer on the reverse side creates an almost seamless connection between the edge and the board.

Uses / Areas of Application

EGGER ABS Seamless Edging offers advantages compared to the conventional edgeband primarily in terms of component appearance. They can be used in a wide range of applications such as: Furniture for kitchens, bathrooms, offices and bedrooms, living rooms and teenager rooms, exhibition builds and shopfitting systems. ABS Seamless Edging is also suitable for finishing individually shaped freeform components.

Processing characteristics

Machining		
Activation		
	Laser-,	Hot Air-Technology
Cutting	good	
Milling direction (1)	Counter direction	
Pre-milling	good	
Radius milling	good	
Profiling	good	
Scraper processing	good	
Buffing	medium	
Polish ability	good	
Stress whitening	medium	

¹⁾ Counter direction milling is recommended for all thermoplastic edging material. ABS Edging is a good electrical insulator and possess high surface and volume resistivity.

Processing

EGGER ABS Seamless Edging is specially developed for activation by using Laser- and HotAir-technology and can be used on all zero-joint systems available on the market. The ABS Seamless Edging is not suitable for bonding with a classic hot melt adhesive. In this case, please use the proven EGGER ABS Edging.

Processing conditions

The edges and boards should be conditioned at normal room temperature (18 - 24°C) before processing. The optimum wood moisture content of wood based material is between 7% and 10%. Processing should also be carried out at a constant room temperature between 18 and 24°C. Draughts should be avoided. Dust and smoke particles can negatively affect the activation energy, therefore the system, especially the laser unit with optics, should be checked and cleaned regularly. It is advisable to make a test piece before real processing to avoid possible defects in the process.

Workflow in the edging machine

Milling of the board

For an optical zero joint, the milling process has a significant influence, so you should always pay attention to sharp tool blades and smooth, angular millers. Always follow the instructions of your tool manufacturer.

Activation

Laser technology: For activation using laser technology, it is recommended to use the laser power (1) (J/cm²) printed on the label as the default value. This value can vary by +/- 2 J/cm² depending on the manufacturer and age of the machine.

Hot-air technology: For activation by using hot-air technology, Egger offers its customers a separate document (1) for download on its homepage with empirically achieved parameters, matched to a large number of hot-air systems available on the market.

Thanks to the defined pretension and plane parallelism, as well as coordinated functional layer thickness, a closed, visually perfect pattern of gaps is achieved. Care must be taken to ensure that the correct energy input is selected. If the energy input is too high, the functional layer may burn and the adhesion force is reduced. The same applies if the energy input is too low, as the functional layer cannot be fully activated.

Seamless edges cannot be processed with a conventional adhesive system.

⁽¹⁾ The specified power setting is based on test series carried out. It is recommended to carry out your own tests to determine the optimum power.

Pressure roller

Optimal positioned pressure rollers ensures a uniform, closed gap. The contact pressure is a decisive factor. The pressure zone should be set to - 0.2 mm and 2.5 - 3.0 bar.

End trimming

The end trim cut is performed using standard set saw blades with pointed teeth. Saw blades with alternate tooth sets are only of limited use as they can cause splintering, particularly when working with thin edge banding. Excessive edge overhang shortens the service life of the following unit and can lead to open gaps during the crosscut process.

Pre-milling and Radius milling

Four- to six-flute cutters with a speed of 12,000 to 18,000 rpm should be used. The exact choice depends on the cutter and machine properties. Incorrect speed or blunt tools can damage the edging. If smearing effects occur, reduce the speed of the cutter, reduce the number of teeth at the trimmer or increase the feed rate if possible. It is recommended to mill in up-cutting direction with diamond tools.

Scraper processing

Since the ABS material tends in general to lighten slightly after scraper machining, the scraper chip should not exceed a thickness of ~ 0.15 mm to counteract this. A blade impact-free pre-treatment helps with the exact setting. For further optimization of the surface quality, the use of duo-drawing blades or anti-whitening blades has proven successful. Optionally, reworking can be carried out by means of a hot air unit.

Buffing

EGGER ABS Seamless Edging can be machined very well with buffing wheels in radius. Any stress whitening that may occur during scraper machining can be eliminated with the aid of buffing wheels.

Extraction

Thermoplastic chips can become statically charged and thus "stick" to the material and the machine aggregates. Compared to other thermoplastic raw materials, the static charge of ABS is low. An extraction rate of approx. 2.5 m³/s is therefore sufficient. The extraction of the chips must take place as close as possible to the mold. Antistatic spray systems can also be used for support.

Edging with protective foil

The use of commercially available release agents, coolants and cleaning agents is recommended for the processing of edges which are provided with a peel-clean foil to protect the surface. The release agent can be sprayed onto the first pressure roller or directly onto the board and edge surface after application of the edgeband. Should the protective foil peel off when processing on a continuous edgebanding machine, it is recommended to check and clean the copy shoes, as well as to consider the use of a lubricant to minimise friction between the protective foil and the copy shoe. To protect the edgeband from external influences for as long as possible, it is recommended to remove the protective foil not before the furniture has been assembled.

If the edgebands need to be stored for several months, this should be done in the packaging in order to positively influence the UV resistance of the protective film. The protective film used is recyclable and can be disposed in accordance with official regulations.

Storage

EGGER ABS Seamless Edging can be stored almost indefinitely, at least 12 months, if stored properly.

Recommended storage conditions:

- room temperature approx. 18 to 25°C
- protected against weather and solar radiation
- dry & clean

Health risk due to dust formation

Dust may be generated during processing. There is a risk of sensitization of the skin and respiratory tract. Depending on the processing and the particle size, especially when inhaling dust, there may be further health risks. The formation of dust must be taken into account when assessing risks in the workplace. In particular in the case of machining processes (e.g. sawing, planing, milling), an effective extraction system must be used in accordance with the applicable health and safety regulations. If there is no adequate suction, suitable respiratory protection must be worn.

Fire and explosion hazard

Dust generated during processing can lead to fire and explosion hazards. Safety and fire protection regulations must be observed.

Further information about EGGER ABS Seamless Edging can be found in our technical datasheet.

Provisional note:

This technical datasheet has been carefully drawn up to the best of our knowledge. The information provided is based on practical experience, in-house testing and reflects our current level of knowledge. It is intended for information only and does not constitute a guarantee in terms of product properties or its suitability for specific applications. We accept no liability for any mistakes, errors in standards, or printing errors. In addition, technical modifications may result from the continuous development of EGGER ABS Seamless Edging, as well as from changes to standards and public law documents. The contents of this technical datasheet should therefore not be considered as instructions for use or as legally binding. Our General Terms and Conditions apply.