

# OSTERMANN ABS EDGINGS

## OSTERMANN ABS edgings

OSTERMANN ABS edgings are a thermoplastic edging product with protective and decorative properties for finishing the narrow edges of wood-based panels. The material is uniformly coloured through, allowing for a clean and easy rounding of the edging. A universal bonding agent (primer) is applied to the reverse side of the OSTERMANN ABS edgings as a standard. Combined with any appropriate adhesive, it ensures a strong bond between the edging and the substrate.

## Use / Areas of application

The field of applications for OSTERMANN ABS edgings is nearly infinite: they are suitable for bathroom, kitchen and office furniture construction, trade fair stands and shop fitting as well as private and commercial interior design. The raw material mix of OSTERMANN ABS edgings is eco-friendly and facilitates both straight processing and an application on all rounded furniture geometries, no matter if they form an inner or an outer radius.

## Product characteristics

### Material

ABS (acrylonitrile-butadiene-styrene) is a mechanically and thermally resistant high quality chlorine-free thermoplastic which is ecologically sound. ABS is resistant to acids, alkalis, salts, alcohol and oils, but only to a limited extent to organic solvents and petrol. The highly impact-resistant material ensures a long blade life for milling and other cutting tools, as well as smooth further processing on the manufacturer's machine. OSTERMANN ABS edgings possess an excellent resistance to extreme fluctuations in temperature and humidity.

Polycyclic aromatic hydrocarbons (PAHs) are not determinable in ABS edgebands supplied by OSTERMANN, as they are below threshold values of the stated categories.

The ABS edgebands supplied by OSTERMANN meet the definition of „formaldehyde-free materials“: Formaldehyde emission under 0.1 ppm

### Production

OSTERMANN ABS edgings are made either by extrusion or on a calender machine.

### Bonding properties

The reverse side of OSTERMANN ABS edgings is coated with a universal bonding agent which, in conjunction with conventional hotmelt adhesives ensures that a firm bond is established between the edgeband and the substrate. The bonding agent coating has been optimised for use with EVA, PA, APAO and PUR hotmelt adhesives. Adhesives that are highly heat-resistant should be used where the product is likely to be exposed to critically high temperatures, e.g. in the kitchen or when exporting furniture in shipping containers. Polyurethane hotmelt adhesives are particularly suitable for use in damp conditions. Always follow the instructions of the respective adhesive supplier, particularly with respect to the application temperature and the amount of glue required.

- EVA - Ethyl Vinyl Acetate
- PA - Polyamide
- APAO - Amorphous Poly Alpha Olefins (based on polyolefin)
- PUR - Polyurethane

#### Surface

The surfaces of OSTERMANN „Dekor“ ABS edgings are always sealed with a scratch-resistant UV lacquer, giving the surface of the edging a high scratch and mechanical wear resistance. OSTERMANN „Uni“ ABS edgings in high gloss, matt, etc. have a surface with a corresponding lacquer coating. Due to the chemical properties of coloured ABS, pressure and heat may influence possible discolouration of the milled radius, when using dark and intensely coloured edgings.

#### Quality features / Technical Data

Any material- or process-related irregularities must not be apparent at a distance of 0.5 m. Due to the precise pre-tensioning and plane parallelism of OSTERMANN ABS edgings, a tight, almost invisible joint is achieved. The pre-tensioning also ensures optimum bonding by taking up any excess glue at the midpoint of the back of the edging and anchor points of the glue in the chipboard.

| Properties / mechanical / electrical | Unit              | Value       | Standard            |
|--------------------------------------|-------------------|-------------|---------------------|
| Light fastness (for interior use)    | -                 | > level 6   | ISO 877<br>ISO 4892 |
| Indentation hardness                 | N/mm <sup>2</sup> | 90 - 110    | ISO 2039-1          |
| Shore D Hardness                     | -                 | 72 ± 6      | ISO 868             |
| Impact strength notched, 23°C        | KJ/m <sup>2</sup> | 17 - 19     | ISO 179/2C          |
| Impact strength unnotched, 23°C      | KJ/m <sup>2</sup> | no breakage | ISO 179/2D          |
| Thermal resistance (50 °C/h, B 50N)  | °C                | approx. 96  | ISO 306             |
| Chemical resistance                  | -                 | good 1-B    | DIN 68861           |
| Shrinkage (1h at 80°C)               | %                 | <1.0        | Factory standards   |
| Static charging                      | -                 | very low    | -                   |

## Processing characteristics

| Machining                          | Suitability   |
|------------------------------------|---|
| Cutting                            | good  |
| Milling direction 1)               | Climb milling / conventional milling*                     |
| Pre-milling                        | good  |
| Radius milling                     | good  |
| Profiling                          | good  |
| Scraper processing                 | good  |
| Buffing                            | good  |
| Bonding                            | Any standard hotmelt adhesive for edgebanding can be used |
| Polishability                      | good  |
| Stress whitening                   | medium  |
| Lacquerability                     | good (Acrylic/PUR lacquer)**                              |
| Machining on BAZ processing centre | good  |

\*Conventional milling is recommended for all thermoplastic edging material

\*\*Due to the variety of coating systems used by different manufacturers, initial test paints with consideration of the right drying time are indispensable.

## Tolerances

### Edging width

| Width (mm) | Tolerance (mm)  |
|------------|-----------------|
| 12 to 100  | + 0.50 / - 0.50 |

### Edging thickness

| Thickness (mm) | Tolerance (mm)  |
|----------------|-----------------|
| 0 to 1.0       | + 0.15 / - 0.15 |
| 1.1 to 2.0     | + 0.10 / - 0.20 |
| 2.1 to 3.0     | + 0.15 / - 0.30 |

### Pre-tension

| Thickness (mm) | Width tolerance (mm) |             |
|----------------|----------------------|-------------|
|                | to 30                | from 30     |
| 0 to 1.0       | 0.00 - 0.50          | 0.00 - 0.70 |
| 1.1 to 3.0     | 0.00 - 0.30          | 0.00 - 0.40 |

#### Plane parallelism

| Thickness (mm) | Maximum deviation (mm) |
|----------------|------------------------|
| 0 to 2.0       | 0.10                   |
| 2.1 to 3.0     | 0.15                   |

#### Longitudinal distortion

| Thickness (mm) | Maximum distortion for every 1 meter length |
|----------------|---|
| 0 to 3.0       | 3 mm  |

### Storage

OSTERMANN ABS edgings are resistant against rotting and can therefore be stored for an almost unlimited period of time at room temperature (20 to 25 °C) in areas that are protected against the influence of weather. The edgings must be protected from sunlight (UV radiation) and dust. However, tests should be carried out prior to processing any edging material that is more than 12 months old.

### Cleaning

OSTERMANN ABS edgings are easy to clean using commercially available cleaning agents suitable for plastic surfaces. To be safe, the suitability of the cleaner should be tested before use.

### Disposal

OSTERMANN ABS edgings must be disposed of in accordance with the regulations of the respective country.

### Radius Processing

When processing radii, especially narrow radii (e.g. with 1 mm edgings: 15 mm radius or with 2 mm edgings: 25 mm radius), pre-treatment or an addition of heat is absolutely necessary, both mechanically and manually.