



Technical Data Sheet

Edge Band ABS

1. Application:

Finishing the side surfaces of furniture boards.

2. Type of Profile:

	Width	Thickness
Wood-like	16,0 – 350,0mm	0,45 – 2mm
Dyeing in mass	16,0 – 350,0mm	0,45 – 2mm

3. Tolerances:

	Width	Tolerance
Slitted edge	≥16.0mm	±0,5mm
Jumbo Roll	350,0mm	±2mm

Thickness	Tolerance
0 – 0,6mm	±0,05mm
0,6 – 1mm	-0,15mm +0,10mm
1 – 1,6mm	-0,20mm +0,15mm
1,6 – 2 mm	-0,25mm +0,15mm

4. Plane- Parallelism - bend:

All available widths 0,00 – 0,2mm

5. Longitudinal distortion:

All available widths ≤3,0mm/1Lm

6. Properties:

Conformity : HK/B/0195/01/2017, Polish National Institute of Hygiene

Color: Polkemic Standard – visual control, comparing to a reference sample under predetermined conditions

Measurement of primer – Device: Spectro-Guide 45/0 gloss D65/10° meeting standards for colors: ASTM D2244, E 308, E1164, DIN 5033, DIN 5036, DIN 6174, ISO 7724

Luster: Polkemic Standard – Device: Spectro-Guide 45/0 gloss with luster geometry 60° meeting standards for luster: ASTM D 523, ASTM D 2457, DIN 67530, ISO 2813, ISO 7668

Softening temperature: Vicat B50, ISO 306 ≈95°C

Hardness: Shore D, ISO 868 ≈76

Hardness of lacquered surface: Dur-O-Test, ISO 55656 ≈3,5N

Ink and Lacquer Adhesion: Cross Cut Adhesion Test , ISO 2409, DIN 927-3 ASTM D3002, ASTM D3359-B – 0

Behavior when aflame: combustible material

7. Treatment:

The furniture edge band on, the reverse side, is coated with a special bonding agent, which when combined with one of the most commonly used hot-melt adhesives, allows the edge tape to adhere to the substrate. It is recommended to allow curing of the edge band and the element for a minimum 24 hours in temperatures no less than 18°C. Always follow the instructions and standards of the machine and adhesive suppliers.

8. Adhesives and the Adhesion processes:

Polkemic edge bands can be used with any of the hot-melt adhesives widely available on the market: EVA, APAO, PA, PUR.

Temperatures of the applied adhesive should always be in accordance to those recommended by the producer in the Technical Data Sheet. The temperature range of the adhesive varies between the type of adhesive, the ambient conditions and the feed rate of the device as well. Before performing any work with the edge bands, they must be stored in in temperatures above zero. It is not recommended to suddenly move the edge bands from a place of negative temperatures to a place with positive temperatures. In such cases it is recommended, before working with the edge bands, to store them in room temperatures for 24 hours. The furniture elements onto which the edge bands will be applied should have a moisture content of 7 to 10%. The recommended temperature of the furniture board and the edge bands at the time of application should be 18°C. Drafts should also be avoided. It should also be noted that the temperature of the adhesive inside the pre-melter is different that the temperature on the application roller. To ensure proper adhesion quality, it is recommended to constantly monitor the temperature of the adhesive at the application roller. The feed speed of the edgebander depends on the type of machine and can differ from a few to several m/min. The amount of the adhesive being applied is dependent on the type of adhesive used. The instructions given from the adhesive producer in the Technical Data Sheet must be followed. The average values for the EVA hot-melt adhesives range from 150 to 210g/m². The adhesive should be applied evenly across the entire width of the edge

band in such amounts that after application of the edge band onto the board a tiny amount of glue should be squeezed out. The adhesive should fill in all the cavities between the wood chips of the board.

The quantity of the applied adhesive is dependent on:

- Type of adhesive used
- Feed speed – the slower it is the more glue is used
- Board density
- Edge band thickness – with thicker bands the amount of adhesive is bigger
- Amount of time the adhesive packaging was opened

The recommended temperature range is strictly dependent on the ambient conditions, feed speed and the producer of the edge banding machine.

Average processing parameters (depending on the type of glue used):

- Adhesive temperature 160-190°C
- Temperature of the rectilinear edgebander ready to work: 200-220°C
- Temperature of the angle edgebander ready to work: 190-200°C
- Feed speed on the rectilinear edgebander: od 20-100m/min

Replacement of cutters – as indicated by the machine manufacturer

9. Cleaning:

Polkemic's edge bands are produced from an ecological material called ABS, which is why NITRO-based cleaners must not be used. The edge bands are resistant to moisture, therefore, to remove any dirt, a damp cloth and any household cleaning agent, dedicated for furniture care, is recommended.

10. Storage:

It is recommended to store Polkemic's edge bands at room temperatures between 15 and 25°C in places isolated from atmospheric elements. In such conditions the storage time is unlimited. No deterioration in quality has been observed in situations of prolonged storage under the conditions mentioned above. Prolonged storage of the edge bands under negative temperatures causes partial degradation and gives the effect of cracking of the band. It is recommended to store that bands in the manufacturer's original packaging in horizontal position.

Polkemic ABS edge bands covered with a high-gloss varnish may also be covered with a protective foil. Storage of high-gloss edge bands covered with a protective foil should not be stored for longer than 6 months from the date of production.

11. What is ABS

The name ABS encompasses a wide range of various, easy to process resins used in the manufacture of products of high durability, good dimensional stability and good chemical resistance. The presence of three different monomers within the chemical makeup of ABS, give the effects of; high chemical resistance and thermal stability (mainly due to the presence of acrylonitrile), impact resistance (mainly because of butadiene), stiffness, durability and ease of processing (thanks to styrene). Due to the flexibility of the chemical makeup and structure of the material, its properties may be modified in almost any way desired and to specific needs.

The above given information and technical recommendations provided by Polkemic in writing and the data from the conducted experiments are consistent with our full and up-to-date knowledge. However, they are to be understood as non-binding recommendations and cannot, in any way, be the basis for any legal claims. The advice provided by Polkemic does not absolve you from independently testing our products, on your own, under the conditions of your production methods and applications. Monitoring the methods of use and processing of our products as well as of your finished products, resulting from the recommendations given by Polkemic, is beyond our capabilities and therefore it is you who bears full and exclusive responsibility for them.