Polychem Systems

Technical Data Sheet

DEKO D4.20 ONE-COMPONENT ADHESIVE

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One-component expanding solventless polyurethane adhesive

1. Purpose

DEKO D4.20 adhesive is intended for gluing of dry and wet timber, wood elements in building industry, window frames, staircases, and also for jointing of wood with foamed polystyrene, mineral and glass wool, PUR foam, cardboard, metal sheets, building papers, concrete slabs and other materials. The adhesive meets requirements D4 waterproofness class, in conformity to PN-EN 204 Standard.

2. Physical-chemical properties

State of aggregation	liquid
Colour	brownish
Viscosity at 25°C [mPas]	3000-6000
Density at 20°C [g/cm^3]	1.1 -1.2

3. Technological features*

DEKO D4.20 polyurethane adhesive hardens by reaction with moisture contained in wood and air. It also reacts with some natural substances found in wood. The glue joint enlarges slightly its volume in the course of bonding – it foams. The foaming degree increases together with hardening speed increase. The adhesive hardening times get shorter and shorter together with temperature increase and with air and glued materials moisture increase. The adhesive forms flexible joint after bonding, resistant to temperatures from -40 to +80 °C.

4. The way of use

One should spread the adhesive on joined elements, or – if gluing the whole surface is not necessary – spread the adhesive stripes at 100 mm intervals (and additionally spread it on the glued surface edges). The adhesive stripes width should be 5 – 10 mm. The adhesive consumption should be not less, than 200 g/m^2 for the whole glued surface, or 150 g/m^2 for spreading the adhesive in form of stripes. In the case of absorptive materials the adhesive consumption increases; for mineral wool, for example, it should be not less, than 300 g/m^2. The adhesive volume applied has to ensure wetting with it both surfaces joined together.

For to ensure complete hardening of the joint in the case of gluing of airtight materials (except for wood) one should sprinkle the adhesive spread with water mist. Water supply ensures simultaneous the adhesive hardening on the whole glued surface. After the adhesive and water mist applying one should press together both glued elements and keep them under load until glue joint hardens.

Tab. The adhesive technological times for gluing wooden bows under room conditions - 23°C, 50% relative humidity; the adhesive spread on wood:

Open time for glued elements assembly and pressing	15 - 25 min
Pressing time	2,5 - 3 h

5. Processing condition

The glued surfaces should be free of dirt and degreased, if necessary.

Processing temperature range:	+5 to +40 °C
Optimal humidity:	50 – 70 %
The adhesive consumption:	0.15 – 0.5 kg/m^2
Time necessary to achieve full strength of the joint	24 h
Utility time:	
- metal containers (drums, cans and the like)	12 months
- drums, canisters and bottles made of plastics	12 months
- IBC containers	6 months.

One should store the adhesive in tightly closed containers at 15 – 30 °C. After the container opening the adhesive volume necessary should be picked up and the container tightly reclosed.

*Notes

Data contained in the sheet have been collected in model conditions. The results obtained in other conditions can be slightly different from data published.
Every time the user is obliged to check the product and auxiliary agents usefulness for his intentional use.
The user is obligated to have a valid technical data sheet and safety data sheet of the product, which is provided by the manufacturer during the sale and every time on the customer's request.
Prior to processing the user must carefully read aforementioned documentation and follow the rules of procedure for product use.

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