

MITOPUR E45

universal adhesive

DESCRIPTION MITOPUR E45 is one component humidity cross-linking adhesive based on polyurethane. Joints prepared with this glue are strong and elastic. It meets the requirements according to EN 204, stress group D4 and thermal resistance from - 40°C to +120°C.

FIELDS OF APPLICATION Bonding of composite elements based on:

- wood all types of wood
wood with high moisture content
for exterior exposure (windows and doors)
- cement asbestos cement and cement-bounded chipboards
- metals different types of steel, sheet aluminium
- plastic and insulating materials polyester, PVC, ABS, polyurethane, mineral and glass fiber
- where good resistance to water and heat is desirable or necessary

CHARACTERISTICS Recommendation: at least one surface should be porous.

Chemical base	isocyanate prepolymer
Appearance	brown liquid
Appearance of glue film	beige
Viscosity at 23 °C (ISO 2555-Brookfield RVT)	5500 – 9000 mPas (spindle 5/20 rpm)
Solids content	98 - 100%
Open time at 20°C and 65% RH	
- without purposeful moisture supply	app. 45 minutes
- with purposeful moisture supply	app. 30 minutes

DANGEROUS GOODS CLASSIFICATION contains isocyanate, see material safety data sheet

APPLICATION The adherents must be clean, free from dust, grease and other dirtiness. Remove release agents from plastic surfaces, roughen and remove dust from sheet metals and hard plastics, pretreated aluminium foils and prime metal if necessary. Single sided application to the surface which is less porous is sufficient.

Application methods:

- with spatula, roller, brush
- closed nozzle applicators

Clean tools and applicators immediately after use.

The adhesive cures with moisture. If moisture of wood is less than 15% or in the case of bonding two unporous surfaces we recommend purposeful moisture supply (atomizing of water, app. 40 g/m²).

A pressing power that guarantees sufficient contact of adherents is sufficient. A good joint fit should be achieved. For bonding wood we recommend:

- for soft wood	0,2 - 0,6 N/mm ²
- for hard wood	0,5 - 1,2 N/mm ²

The squeezed out glue must be removed immediately.

WARNING: during reaction of curing carbon dioxide is released. Depending on quantity of glue applied and additional moisture supply foaming in the glue line will occur. That might be disturbing specially in the case of gluing two nonporous surfaces together.

The pressing times are dependent on temperature (environment, adherents, glue), humidity of air and adherents, quantity of applied adhesive and purposeful moisture supply. Higher air humidity, purposeful moisture supply and increased temperature accelerate curing reaction. They affect the storing stability, too.

The most convenient binding conditions are:

temperature of wood and all materials involved	18 - 20 °C
relative humidity	60 - 70 %
moisture of wood	min 8%
glue application	80 - 250 g/m ²
purposeful moisture supply	app. 40 g/m ²

If used as mentioned, the pressing or stacking time at 20°C should be at least 45minutes. Exact values must be established for the particular application according to conditions in question. The final strength and water resistance is achieved after some days.

Avoid additional working operations on glued particles before 24 hours after gluing. After each use close the plastic bottle tightly. Opened doses should be used as soon as possible.

ATTENTION

The adhesive contains 4.4 diphenyl methane diisocyanate and is harmful by inhalation. Pay attention to effective exhausting. In case of insufficient ventilation wear suitable respiratory equipment. The adhesive reacts chemically with water, therefore contacts with eyes, mouth or nose membranes should be avoided by all means.

CLEANING

Remove uncured glue with piece of cloth moistened in organic solvent immediately after use.

Cured glue can be removed mechanically.

Clean tools with organic solvents immediately after use.

PACKING

- plastic dose with lengthening-piece	300 g
- polyethylene bottles with lengthening-piece	500 g
- metal can	5 kg

STORAGE

Keep in air-tightly closed original packing in dry place at temperatures between +5°C and +25°C.

Protect from humidity. In contact with moisture carbon dioxide is released.

Opened doses should be used as soon as possible.

Properly stored adhesive could be used at least 6 months.

The information provided herein, especially recommendations for the usage and application of our products, is based on our knowledge, results of laboratory tests and practical experience gained to date.

We guarantee a constant quality of our products under our technical specifications. Technical advice of our application department is available without obligation.

This does not release the buyer from testing our products in his own responsibility with respect to their suitability for intended application and application process. Such an evaluation should be repeated if materials are changed in any way or bought from a different source.

We do not accept any liability with regard to above information or with regard to any verbal recommendation since different materials used in conjunction with our products as well as varying working conditions are beyond our control.