



# WOODWORKING ADHESIVES

Adhesive solutions for your professional needs and industrial processes.

**KEEPING THINGS TOGETHER**



# Our brands: developed for you

Modern production processes, material diversity and high-quality end products require innovative technological and adhesive solutions. Mitol offers a wide selection of carefully developed top-quality products for different woodworking applications for professional use as well as for industrial processes. For the widest spectrum of uses, an endless array of materials and every possible idea – Mitol always has an adhesive solution for you. Just find the brand that meets your requirements the best.



## MEKOL

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MEKOL is a well-known brand for a broad selection of adhesives based on PVAC, EVA, acrylic and PU dispersions. MEKOL products are water based and represent an ecological and environmentally-friendly solution. Our own production of dispersions gives us the advantage of having better control over the quality of final products and enables us to be more creative in developing new adhesives.

Because of low production costs, easy processing and cleaning, MEKOL adhesives are efficiently used for a variety of applications in woodworking and furniture industry, such as solid wood processing, flat and 3D lamination, postforming, dowelling and frame bonding.

## TERMOKOL

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TERMOKOL products embrace a wide selection of high-quality hot melt adhesives based on EVA copolymers.

They are in solid state at room temperature. They are applied in melted (liquid) form, so they must be heated to the working temperature (120°C – 200°C) before use.

TERMOKOL products are distinguished by good adhesion to different materials, strong joint and short setting times which allow high production capacities.

A broad selection of products is available in a wide range of viscosity, open times and specific adhesion on various materials. Due to their unique characteristics, TERMOKOL hot-melts are successfully used for different applications in furniture industry, such as edgebanding, profile wrapping and assembly operations.

## TERMOKOL ULTRA

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TERMOKOL ULTRA is a line of polyolefin based hot-melt adhesives. Due to their excellent characteristics, TERMOKOL ULTRA hot-melts have superior flowing performance, good thermal stability, don't make threads and enable lower adhesive consumption. They form high-quality joints and have excellent adhesion to difficult surfaces like PVC and PP. They are specially recommended for the products where very strong joints and resistance to low and high temperatures are required.

## TERMOKOL PUR

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TERMOKOL PUR is a new line of high-quality reactive hot melt adhesives with a wide range of adhesion to different materials. PUR hot melts build up excellent green adhesion after cooling to room temperature. After complete crosslinking the bond is strong and resistant to water, heat and chemicals. Due to low processing temperature, they are ideal for gluing thermoplastic materials.

## MITOPUR

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MITOPUR brand represents a selection of one- and two-component polyurethane adhesives. Reactive systems cure by a reaction between glue and moisture or water (1C systems) or by a reaction between two components (2C systems). The products from this group are characterized by good adhesion to different materials and surfaces, the joint is resistant to water and temperatures from -40°C to + 120°C, it has high final strength and retains elasticity even at low temperatures. The ability of 1C PU adhesives to foam in reaction with water is successfully used to fill the gaps and reduce glue consumption.

## UROKOL

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UROKOL products are one-component urea formaldehyde adhesives in powder form used for hot pressing of veneer to wooden boards. Compared to urea formaldehyde glues in liquid form, they have longer shelf life and are easy to store and transport.

# SOLID WOOD PROCESSING



Like no other material, wood stands for quality and naturalness, and can be used for structures in construction, windows and door frames, floors, kitchen worktops, tables and chairs. Due to a very unique requirements for different products, choosing the proper adhesive is of utmost importance for a smoothly running production process and superior quality of final product.

## Solid wood panels

Single and multilayer solid wood panels consist of slats or strips of wood, which are mostly glued together with PVAC adhesives. The adhesives meet the requirements for D2, D3 and D4 durability class, are fast-setting and formaldehyde-free. Boards exposed to variable climatic conditions have to provide a highly resistant bond with permanent durability. In this case, extremely strong polyurethane adhesives based on moisture-curing polyurethane prepolymer must be used.



Product	Base	Viscosity (mPas) 23°C	Open time (min.)	Pressing time (min.)	Durability group EN 204	Special properties
<b>MEKOL 1120</b>	PVAC dispersion	7500 – 10500	7 - 10	15 - 20	D2	fast setting
<b>MEKOL 1131</b>	PVAC dispersion	7000 – 10000	7 - 10	15 - 30	D3/D4	Standard type, fast setting
<b>MEKOL 1133</b>	PVAC dispersion	7000 – 10000	10 - 12	15 - 30	D3/D4	long open time
<b>MEKOL 1141</b>	PVAC dispersion	10 000 – 14000	7 - 10	20 - 40	D4	2C glue
<b>MEKOL 1144</b>	PVAC dispersion	5000 - 9000	9 - 11	20 - 40	D4	1C glue
<b>MEKOL 1163</b>	PVAC dispersion	7000 – 10000	7 - 10	15 - 30	D2	high bond strength
<b>MITOPUR E45</b>	1C PUR prepolymer	5500 - 9000	45 - 50	45 - 60	D4+	hard-to-stick surfaces, extreme climatic conditions

# Windows and door frames

Window scantlings and door frames may be exposed to extreme weather conditions. They are largely bonded with PVAc adhesives, which meet the requirements for durability class D4 according to EN 204. They are formaldehyde free, user and environmentally-friendly products. They can be used in cold, hot and HF presses. Two-component emulsion polymer isocyanate (EPI) adhesives also meet the requirements for durability class D4 and are specially recommended for bonds with direct exposure to weathering and bonding of modified wood.



Product	Base	Viscosity (mPas) 23°C	Open time (min.)	Pressing time (min.)	Durability group EN 204	Special properties
<b>MEKOL 1131</b>	PVAc dispersion	7000 – 10000	7 - 10	15 - 30	D3/D4	Standard type, fast setting
<b>MEKOL 1141</b>	PVAc dispersion	10 000 – 14000	7 - 10	20 - 40	D4	2C glue
<b>MEKOL 1144</b>	PVAc dispersion	5000 - 9000	9 - 11	20 - 40	D4	1C glue
<b>MEKOL 1152</b>	EPI dispersion	5000 - 8000	10 - 12	20 - 40	D4+	2C glue, WATT'91(80)>10N/mm <sup>2</sup>
<b>MITOPUR E45</b>	1C PUR prepolymer	5500 - 9000	45 - 50	45 - 60	D4+	hard-to-stick surfaces, extreme climatic conditions



# FURNITURE MANUFACTURE / CABINETRY



Furniture production is the only industry reflecting the lifestyle of consumers. The furniture is equipped with many functions to meet various different requirements at the same time. Material diversity and faster production rates can only be achieved with powerful adhesives.

## 3D lamination

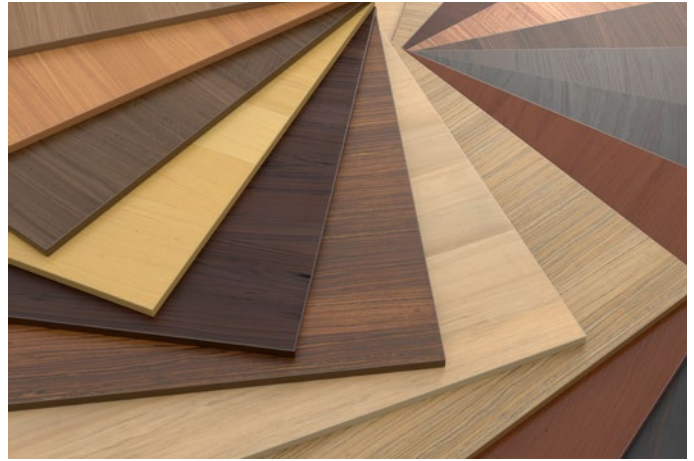
3D thermally coated furniture fronts represent an important segment in the furniture industry. The manufacturing processes and adhesives used have to meet the latest industry requirements and ensure a reliable bond. One- and two-component adhesives based on PUR dispersions are the guaranty for a perfect surface look and quality bonding with excellent heat and water resistance.



Product	Base	Viscosity (mPas) 23°C	Reactivation temperature (°C) in the glue line	Special properties
MEKOL 1950	PU dispersion	500 - 900	60 - 80	1C/2C glue, standard type
MEKOL 1951	PU dispersion	300 - 700	50 - 70	1C/2C glue, very low activation temperature
MEKOL 1952/O	PU dispersion	500 - 900	60 - 80	1C/2C glue, light blue color
MEKOL 1953	PU dispersion	1600 - 2500	60 - 70	1C glue, built-in latent hardener, high heat resistance
MEKOL 1954	PU dispersion	1600 - 2500	55 - 60	1C/2C glue low activation temperature
MEKOL 1955	PU dispersion	1600 - 2700	60 - 70	1C glue, built-in latent hardener, very high heat resistance
MEKOL 1130	PVAC dispersion	7000 – 10000	above 80	1C/2C glue for 3D veneering
MEKOL 1921	copolymer dispersion	15 000 – 20 000	above 80	1C glue for simple 3D gluing of PVC

# Flat lamination

In modern furniture, wood-based panels are laminated with the most diverse materials. Frequently used materials are decor foils veneers, thermoplastic foils, CPL and HPL. These materials are bonded using a variety of technologies, which demand specific adhesive solutions, such as innovative adhesives based on formaldehyde free PVAc dispersions meeting the requirements for durability class D1, D2 and D3 quality according to EN 204, as well as special copolymer dispersions for gluing thermoplastic foils. For difficult gluing surfaces, like laminated particle board, 1C polyurethane adhesives based on moisture-curing prepolymer are the proper solution.



Product	Base	Viscosity (mPas) 23°C	Open time (min.)	Pressing time (min.)	Durability group EN 204	Special properties
<b>MEKOL 1001/M</b>	PVAc dispersion	8000 – 11500	15 - 18	25 - 30	D1	meets the requirements IMO Resolution A.1/3.18e (Modul B), construction class division B and C
<b>MEKOL 1031</b>	PVAc dispersion	8500 – 11500	12 - 15	20 - 25	D3	warm pressing
<b>MEKOL 1120</b>	PVAc dispersion	7500 – 10500	7 - 10	15 - 20	D2	fast setting glue
<b>MEKOL 1131</b>	PVAc dispersion	7000 – 10000	7 - 10	15 - 30	D3	WATT'91(80)>7N/mm2
<b>MEKOL 1163</b>	PVAc dispersion	7000 – 10000	7 - 10	15 - 30	D2	high bond strength
<b>MEKOL 1904</b>	copolymer dispersion	14 000 – 18000	1 - 2	continuous process	D2	PVC and PP foil lamination
<b>MEKOL 1921</b>	copolymer dispersion	15 000 – 20000	2 - 3	continuous process	/	PVC, PP and decor paper foil lamination, high initial tack
<b>MITOPUR E20</b>	1C PUR prepolymer	2500 - 4000	12 - 20	20 - 60	D4	bonding sheet metal, isolation materials and wood
<b>UROKOL P 410</b>	One shot urea-formaldehyde resin	250 – 450 (20°C; 50% water solution)	5 - 7	0,8 – 1,3/100°C	/	veneering in hot press > 100°C; E1 class
<b>TERMOKOL PUR 2521</b>	PUR hot melt	9000 – 13 000 (at 120°C)	3 – 5	continuous process	D4+	universal laminating adhesive

# Post forming

Forming HPL, CPL, multi-layered papers in the post-forming process requires special PVAc glues with excellent spraying ability, high green strength and high setting speed.



Product	Base	Viscosity (mPas) at 23°C	Durability group	Special properties
<b>MEKOL 1908</b>	PVAc dispersion	8500 – 11000	D1	nozzle application
<b>MEKOL 1107</b>	PVAc dispersion	20 000 – 25000	D1	roller application

# Doweling, frame bonding, assembling

Doweling glues are special PVAC dispersion adhesives for bonding hard wood, soft wood and wood-based substrates. Rheology of these adhesives is adapted for manual and fully automated nozzle application. Special additives in formulation prevent the material build-up at the nozzle tips. The adhesives form a tough-elastic glue film.

For special assembling operations and very fast bonding hot melt adhesives are innovative bonding solutions. They are applied with special hot melt guns.



## COLD GLUING

Product	Base	Viscosity (mPas) 23°C	Pressing time (min.)	Special properties
<b>MEKOL 1001</b>	PVAC dispersion	9000 – 12000	10 - 15	standard type
<b>MEKOL 1008</b>	PVAC dispersion	7000 - 9000	10 - 15	nozzle application
<b>MEKOL 1009</b>	PVAC dispersion	9000 – 14000	8 - 12	fast setting
<b>MEKOL 1101</b>	PVAC dispersion	20000 – 25000	5 - 10	very fast setting, strong bond
<b>MEKOL 1106</b>	PVAC dispersion	200 - 400	10 - 15	automatic doweling
<b>MEKOL 1110</b>	PVAC dispersion	14000 – 18000	8 - 12	fast setting, very strong bond, especially for chairs assembling
<b>MEKOL 1110/F</b>	PVAC dispersion	14000 – 18000	8 - 12	fast setting, very strong bond, for leak detection with UV lamp
<b>MEKOL 1908</b>	PVAC dispersion	8500 – 11000	8 - 12	fast setting, spray application
<b>MITOPUR E45</b>	1C PUR prepolymer	5500 - 9000	45 - 60	hard-to-stick surfaces

## HOT GLUING

Product	Base	Viscosity (mPas)	Softening point (°C)	Pressing time (min.)	Special properties
<b>TERMOKOL 2108</b>	EVA hot melt	1500 – 2200 (at 150°C)	77 - 87	3 – 5 seconds	standard type
<b>TERMOKOL 2624</b>	EVA hot melt	2300 – 3300 (at 170°C)	75 - 85	2 – 3 seconds	assembling hard-to-stick surfaces



# Edgebanding

Edgebanding of wood-based panels with a variety of edge bands has been an established practice in furniture industry. High quality hot melts based on EVA and PO polymers ensure superior bonding strength, zero-bond line appearance as well as resistance to heat. They are designed for automatic and manual edgebanding and operate at a wide range of feed speeds and application temperatures.



## AUTOMATIC

Product	Base	Viscosity (mPas) at 200°C	Softening point (°C)	Processing temperature (°C)	Special properties
<b>TERMOKOL 2003</b>	EVA hot melt	70000 – 110000	98 - 108	190 - 210	economic type
<b>TERMOKOL 2012T</b>	EVA hot melt	55000 – 75000	104 - 114	200 - 210	invisible, transparent glue line
<b>TERMOKOL 2015</b>	EVA hot melt	60000 – 80000	98 - 108	170 - 200	standard type
<b>TERMOKOL 2019</b>	EVA hot melt	65000 – 85000	100 - 112	180 - 210	universal type
<b>TERMOKOL 2025</b>	EVA hot melt	48000 – 58000	108 - 113	180 - 200	unfilled type, also for processing centre and soft forming
<b>TERMOKOL 2031</b>	EVA hot melt	27000 – 41000	93 - 103	160 - 200	low application temperature
<b>TERMOKOL 2038</b>	EVA hot melt	60000 – 75000 (at 150°C)	100 - 110	150 - 170	very low application temperature
<b>TERMOKOL 2072</b>	EVA hot melt	80000 – 100000	107 - 113	190 - 200	high quality bonding, also for processing centre and soft forming
<b>TERMOKOL ULTRA 2042</b>	PO hot melt	90000 – 120000	155 - 160	200 - 220	very high heat resistance
<b>TERMOKOL PUR 2501</b>	PUR hot melt	50000 – 80000 (at 140°C)	/	140 - 160	universal edgebanding adhesive, no cleaning over night and weekend

## MANUAL

Product	Base	Viscosity (mPas) at 150°C	Softening point (°C)	Processing temperature (°C)	Special properties
<b>TERMOKOL 2006</b>	EVA hot melt	30000 - 40000	90 - 110	130 - 160	unfilled type
<b>TERMOKOL 2008</b>	EVA hot melt	35000 – 60000	80 - 90	140 - 160	for PVC bonding
<b>TERMOKOL 2031</b>	EVA hot melt	27000 – 41000 (200°C)	93 - 103	160 - 200	universal type

# Profile wrapping

Profile wrapping is one of the current hot topics. Various foils, papers and veneers are bonded to solid wood and other wood-based materials to produce cornice rails, drawer frames, wall and ceiling panels, doorframes and other decorative profiles. The modern technology for adhesive application is running continuously using special EVA and PO-based hot melts with specific adhesion, fast setting superior bonding and heat resistance.



Product	Base	Viscosity (mPas) at 170°C	Softening point (°C)	Processing temperature (°C)	Special properties
<b>TERMOKOL 2026</b>	EVA hot melt	20000 – 30000 (at 200°C)	89 - 95	180 - 210	Veneer wrapping
<b>TERMOKOL 2027</b>	EVA hot melt	10000 – 14000	80 - 90	170 - 200	standard type
<b>TERMOKOL 2028</b>	EVA hot melt	11000 – 15000	75 - 85	170 - 200	quick melting, long open time
<b>TERMOKOL 2030</b>	EVA hot melt	10000 – 16000	80 - 90	170 - 200	high green strength
<b>TERMOKOL 2032</b>	EVA hot melt	9500 – 13500	73 - 76	130 - 170	PVC, PP wrapping
<b>TERMOKOL 2039</b>	EVA hot melt	4500 – 6000 (at 200°C)	90 - 95	170 - 200	unfilled type, transparent
<b>TERMOKOL 2090</b>	EVA hot melt	15000 – 18000	75 - 85	150 - 170	PVC, PP wrapping, unfilled type, transparent
<b>TERMOKOL ULTRA 2053</b>	PO hot melt	15000 – 20000 (at 200°C)	150 - 155	190 - 210	high heat resistance
<b>TERMOKOL ULTRA 2054</b>	PO hot melt	10000 – 20000 (at 200°C)	128 - 135	190 - 210	high heat resistance, unfilled type, transparent
<b>MEKOL 1904</b>	Copolymer dispersion	14000 – 18000 (at 23°C)	/	cold processing	drawer wrapping with PVC or PP foil
<b>MEKOL 1921</b>	Copolymer dispersion	15000 – 20000 (at 23°C)	/	cold processing	profile wrapping, with PVC or PP foil, high green strength
<b>TERMOKOL PUR 2511</b>	PUR hot melt	19000 – 27000 (at 120°C)	/	120 – 140	universal profile wrapping adhesive





# ALWAYS IN BETWEEN



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