

Pigmolux DC ST90

3447

Water-based, radiation-curing texture-effect pigmented coating for industrial coating in furniture and interior finishing

PRODUCT DESCRIPTION

General

Water-based texture-effect pigmented coating for wooden surfaces in the furniture sector. The coating material is cured by two different cross-linking mechanisms (radiation curing and two-component polyurethane cross-linking). This special curing system (Dualcure) ensures that even areas of the workpiece that are insufficiently exposed to radiation – shadowed areas – are fully cross-linked. Through hardener cross-linking, three-dimensional parts can also be coated with ADLER Pigmolux DC ST90 3447 and cured without the use of UV emitters. The product is characterised by good mechanical and chemical resistance, excellent resistance to light exposure, good filling power and very good stackability.

Special properties and standards



- **ÖNORM A 1605-12 (furniture surfaces)**
Resistance to chemical reactions: 1-B1 (except for pure white and pastel shades)
Response to abrasion: 2-D (≥ 50 U)
Response to scratches: 4-D (≥ 1.0 N)
Flame treatment: 5-B (hardly inflammable furniture surface)
- **DIN 68861 (furniture surfaces)**
Part 1: Response to chemical stress: 1-B (except for pure white and pastel shades)
Part 2: Response to abrasion: 2 D (> 50 to ≤ 150 U)
Part 4: Response to scratches: 4 E (> 0.5 to ≤ 1.0 N)
- **EN 13501-1 (fire behaviour)**
In combination with a non-combustible substrate, e.g. materials of fire class A1 or A2: classification as B-s2, d0. For the classification of the reaction to fire, the complete build-up (carrier board / glue / veneer or foil) is always taken into account.
- **DIN 53160-1 and DIN 53160-2**
Perspiration and saliva-proof properties
- **ÖNORM EN 71-3**
Safety of toys; migration of certain elements (free of heavy metals)
- **French ordinance DEVL1104875A**
Marking of construction coating products for their emission of volatile pollutants: A+

Application area



For coating heavily used surfaces in furniture and interior fittings, including kitchen and sanitary areas. Application areas II - IV according to ÖNORM A 1610-12.

The application area depends on the colour shade. Pure white and pastel shades meet the requirements except for a few colouring test materials.

For hardly inflammable or flame-retardant coating systems.

PROCESSING

Processing instructions



- Please stir the product before use.
- The temperature of the product and object, and the room temperature must be at least + 15 °C.
- To achieve the highest chemical resistance and "ring test"-resistant surfaces, we recommend coating with Bluefin Multilux Top (3853) in the desired gloss level.
- When coating interior doors, it must be ensured that only sealing profiles compatible with acrylic paints are used.
- When using plastic edgebands, an adhesion test must always be carried out with the planned structure. Adhesion can be improved on ABS edgebands by using ABS Kantenaktivator (8315000210).
- Any change in the processing sequence, environmental conditions, non-observance of instructions or the use of products not listed may have an unfavourable effect on the result.
- Please follow our **ARL 150 - Working guidelines for water-based furniture coatings**.

Blending ratio



8450 3%



8451 5%

100 Part(s) by weight Pigmolux DC ST90 (3447)
3 Part(s) by weight Aqua-Hardener 8450 (8450000210)

If Pigmolux DC ST90 (3447) is processed without UV curing (e.g. for three-dimensional parts), the following paint-hardener mixture must be used:

100 weight part(s) Pigmolux DC ST90 (3447)
5 weight part(s) Aqua-Hardener 8451 (8451000210)

Aqua-Hardener 8450 (8450000210) or Aqua-Hardener 8451 (8451000210) must be carefully worked into the coating components by stirring before processing. We recommend waiting approx. 10 minutes before starting work.

Pot life



With Aqua-Hardener 8450 (8450000210): 4 hour(s)

Mixed material can be processed for a further 4 hour(s), but must be mixed 1:1 with freshly hardened material. A further extension of the pot life is not possible.

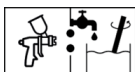
With Aqua-Hardener 8451 (8451000210): 4 hour(s)

Mixed material can be processed for a further 4 hour(s), but must be mixed 1:1 with freshly hardened material. A further extension of the pot life is not possible.

Increased temperatures reduce the pot life.

Please only prepare as much material as can be used within the pot life.

Application technique

0 – 5% H₂O

	Airless	Airless air-supported (Airmix®, Aircoat, etc.)	Cup gun
Spraying nozzle Ø (mm)	0,28 - 0,33		1,8
Spraying pressure (bar)	100 - 120		2 - 3
Vaporizer Air (bar)	-	1 - 2	-
Diluent	-		Water
Diluent amount added (%)	-		0 - 5
Viscosity 6-mm-cup (s)	38		20
Applied quantity per application (g/m ²)	100 - 200*		
Total quantity applied (g/m ²)	max. 450		

* closed-pored surfaces: approx. 120 g/m²* open-pored surfaces: approx. 150 - 200 g/m²

The shape and surface condition of the workpiece as well as the type of application influence the actual consumption. Accurate values for consumption must be obtained by applying trial coats in advance.

Drying conditions

Flash-off of water:

35 - 45 minutes	Conveyor belt pallet dryer (increasing temperature up to max. + 50 °C, air speed approx. 2 m/s)
or	
15 - 20 minutes	Flat channel dryer (increasing temperature up to max. + 50 °C, air speed approx. 2 m/s)

The mentioned system parameters are reference values, which must be coordinated with the respective plant. Drying depends on the substrate, layer thickness, temperature, air exchange, relative humidity, stacking pressure and stacking conditions. Lower temperatures and/or high level of atmospheric humidity can increase the drying time.

UV curing



Feed rate 2 - 3 m/min when using 1 Ga emitter and 1 Hg emitter (power: 80 W/cm²)

Attention must be paid to adequate curing at the edges!

Cleaning the working equipment



8029

With water immediately after use.

To remove dried paint residues we recommend using Clean Aqua-Cleaner (8029) (diluted 1:1 with water).

SUBSTRATE

Type of substrate

Solid wood, chipboard or wood fibre materials suitable for opaque coating, veneered or coated with priming film.

Substrate property

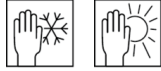
The substrate must be dry, clean, capable of holding the paint, free from separating substances such as grease, wax, silicone, resin etc. and free from wood dust, as well as tested for suitability for coating.

Substrate preparation	Wood sanding: Grit size 150 – 180 Carrier plates coated with priming film: Grit size 180 - 240
COATING SYSTEM	
Primer coat	For closed-pore coating surfaces Carrier plates coated with priming film: Film sanding Grit size 240 (optional) 1 x Aqualux Spritzfüller (3319) (two-component) Intermediate sanding Grit size 320 – 360 Solid wood or chipboard panels veneered with blind veneer (e. g. beech): 2 x Aqualux Spritzfüller (3319) (two-component) Intermediate sanding Grit size 280 – 320 MDF panels: 2 - 3 x Aqualux Spritzfüller (3319) (two-component) Intermediate sanding Grit size 280 – 320 For open-pore coating surfaces Pre-priming with 150 - 200 g/m ² Aqualux Spritzfüller (3319) (two-component) for wood species with water-soluble, colouring wood extractives (e.g. ash) or for build-ups in the colour shade RAL 9010 "Reinweiß" (pure white) as well as in pastel shades. Regarding coating systems for full-tone-colours it is sufficient to apply one primer coat using 150 – 200 g/m ² Pigmolux DC ST90 (3447).
Intermediate sanding 	Grit size 280 – 360 Avoid sanding straight through! Remove sanding dust.
Topcoat	1 x Pigmolux DC ST90 (3447) in the desired colour
CLEANING AND MAINTENANCE	
Cleaning and Maintenance	Cleaning with Clean-Möbelreiniger (7202) and care with Clean-Möbelpflege Plus (7222).
ORDERING INFORMATION	
Size of trading unit	25 kg
Colour shades / Glosslevels	Pigmolux DC ST90 (3447) & colour number RAL-shades, NCS-shades, etc. are available as special productions.
Supplementary products	ABS Kantenaktivator (8315) Clean Aqua-Cleaner 8029 (8029) Aqua-Hardener 8450 (8450) Aqua-Hardener 8451 (8451) Aqualux Spritzfüller (3319) Bluefin Multilux Top (3853) Clean-Möbelpflege Plus (7222) Clean-Möbelreiniger (7202)

Please refer to the corresponding technical data sheets of the products.

FURTHER DETAILS

Durability / storage



Min. 1 year(s) in the original sealed containers.

Make sure the product is protected against moisture, direct sunlight, frost and high temperatures (above 30 °C).

Close opened containers well and use up the content as soon as possible.

Technical specifications

Delivery viscosity: 35 – 38 seconds in accordance with DIN 53211 (6 mm measuring cup, 20 °C)

Safety information



The product is only suitable for industrial use.

The inhalation of paint aerosols during spray application must generally be avoided. This is ensured by the proper use of a respirator (combination filter A2/P2).

Further information on the subject of safety during transport, storage and handling as well as disposal can be found in the relevant safety data sheet. The current version can be accessed on the Internet at www.adler-lacke.com.