POLYAC® BDM-M THIX

FLEXIBLE, PUMA BASED, THIXOTROPIC LIQUID, VERY FAST CURING, MANUALLY APPLIED, ELASTOMERIC WATERPROOFING MEMBRANE

DESCRIPTION

POLYAC® BDM-M THIX is thixotropic version of POLYAC® BDM-M, highly reactive, flexible, liquid and easy to apply, elastomeric waterproofing membrane or wear layer with very high durability even at low temperatures.

ADVANTAGES

- High reactivity
- Fast curing
- Sustainable
- Liquid and easy to apply
- Applicable at low temperature
- Optimal viscosity
- Crack bridging
- Optimized polymerization under difficult conditions
- High chemical resistance
- Resistant to thawing salt

FIELD OF APPLICATION

POLYAC® BDM-M THIX can be used as a waterproofing membrane or as a wear layer. Applicable on horizontal, inclined and vertical substrates.

- Roofs
- Terraces
- Balconies
- Galleries
- Parking roofs
- Slopes
- Bridges

APPLICATION

Note: The following is a typical application description. In case of other jobsite parameters, please contact our technical department.

PRELIMINARY ANALYSES

Before starting the substrate preparation and applying the products, it is important to test various parameters in order to achieve a good and sustainable result.
Compressive strength of the substrate: min. 25 N/mm^2.
Tensile strength of the substrate: min. 1.5 N/mm^2
POLYAC® BDM-M THIX must be applied on a dry surface.
Moisture content in the substrate: ≤ 5% moisture. (Exception: ≤ 10% moisture if the primer POLYAC® 18 is used.)
Conditions during the application and curing: see "Application conditions" further described in this technical data sheet.
Technically studied dilatation joints must be provided. These are resumed in the synthetic resin system to be installed.
The flatness of the surface must be consistent with the desired requirements. If this is not the case, then correct measures have to be taken to fill in or smooth out the irregularities with products that are complementary to the substrate and to the synthetic resin system to be installed.
Shrink joints and passive cracks can be coated. This on condition that they are not used as dilatation joints or if they do not follow other movements of the structure and the substrate and that they are flattened with products that are complementary to the substrate and to the synthetic resin system to be installed.

REQUIRED TOOLS

- Mixer with spindle (min. 300 rpm)
- Spatula, rake or toothed trowel
- Spiked roller
- Masking tape

PREPARATION OF THE SUBSTRATE

POLYAC® BDM-M THIX is always applied on a suitable primer depending on the type of substrate.
POLYAC® 12: Dry, form-retaining, mineral substrates. POLYAC® 14: Moving or less form-retaining mineral substrates, asphalt or bituminous membranes. POLYAC® 15: Metal. POLYAC® 18: Damp, form-retaining, mineral substrates. Always consult the POLYAC® primers technical data sheets. It is not necessary to place a primer on existing POLYAC® systems before applying POLYAC® BDM-M THIX. Before applying the primer:
Cracks, joints and other parts that show water leaks must first be made completely water-tight and leak-proof.
The surface must be mechanically pre-treated. This can be achieved by dust-free bullet- or sandblasting or by grinding the surface. Tiles are to be degreased well and grinded with a diamond blade. These treatments ensure that an open texture surface is obtained, to remove the cement laitance from concrete and old remnants of coatings and adhesives.
High pressure water jetting is possible but then the surface must dry sufficiently before applying the primer. Moisture content in the substrate: ≤ 5% moisture. (Exception: ≤ 10% moisture if the primer POLYAC® 18 is used.)
Always apply the products on a clean surface, free from adhesion reducing materials such as dirt, oil, grease, old coatings or surface treatments, ...
The parts of the surfaces to be coated that do not meet the requirements as described above (compressive strength, tensile strength, parts that are not well connected, ...) must be treated or removed and repaired according to a correct method and with products that are complementary to the substrate and the synthetic resin system to be installed. Remove any loose parts by brushing properly and remove dust with an industrial vacuum cleaner.
The surface must be mechanically pre-treated. This can be achieved by removing the dust by bullet- or sandblasting or by sanding the surface. The degree of roughness for metal surfaces is SA 21/2. Remove rust by sandblasting. The surface must be dry and free of impurities such as grease, oil or dust.

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Galvanized steel is thoroughly cleaned in advance with water and soap or sandblasted. Degrease metal surfaces immediately after the mechanical preparation with SOLVENT MEK. After the SOLVENT MEK has fully evaporated, immediately apply a layer of POLYAC® 15 to prevent the steel from re-oxidizing.

PREPARATION OF THE PRODUCT

Mix all POLYAC® BDM-M THIX components well before use to obtain a good paraffin distribution. Dispense an amount of resin that can be processed within 15 minutes. Add one package of POLYAC® PTC per 25 kg of POLYAC® BDM–M THIX. This mixture remains stable for 8 hours.
If a different colour is desired than the standard colours described in this technical data sheet, you can now add 2.5% pigment powder to the mixture and mix it completely again until a homogeneous mass is achieved.
Add 1 to 5% of POLYAC® CATALYST.

Add POLYAC® CATALYST to POLYAC® BDM-M THIX.		
Temp.	In%	POLYAC® CATALYST per 1 kg POLYAC® BDM-M THIX
0 °C	5%	50 g
5 °C	4%	40 g
10 °C	3%	30 g
20 °C	2%	20 g
30 °C	1%	10 g

Mix the curing powder during one minute until fully dissolved.

PREPARATION OF THE EQUIPMENT

Always work with clean mixing containers and application material.

APPLICATION

OPTION 1: As anti-slip wear layer:
Apply only 1 layer. Spread the mixture with a spatula, rake or toothed trowel. Deaeration and levelling with a spiked roller is recommended. Immediately broadcast this layer full and abundantly with dry quartz and this within the processing time described in this technical data sheet. Minimum quartz grain size is 0.4 - 0.8 mm. Note: Do not disturb the paraffin layer that occurs during curing.

Layer	Product	Layer thick-ness mm	Consumption kg/m²
Primer	Depending on the substrate	≈ 0.3	0.25 - …
Levelling layer	Optional	1.5 - ...	
Anti-slip wear layer	POLYAC® BDM-M THIX + broadcasted with dry quartz	Approx. 1.5 2 – 3	Approx. 1.8 4 – 6
Topcoat	POLYAC® 61-64 AF-65	0.6 – 1	0.6 – 1

OPTION 2: As a standard waterproofing system:
Always apply 2 layers (waterproofing layer + protective layer). Apply POLYAC® BDM-M THIX. Spread the mixture with a spatula, rake or toothed trowel. Deaeration and levelling with a spiked roller is recommended. After the first layer has cured, apply a second layer with a spatula, rake or toothed trowel.
Deaerate and level with a spiked roller immediately. Only this last layer is then fully broadcasted with dry quartz after spreading and levelling and this within the processing time described in this technical data sheet. Minimum quartz grain size is 0.4 - 0.8 mm. Note: Do not disturb the paraffin layer that occurs during curing.

Layer	Product	Layer thick-ness mm	Consumption kg/m²
Primer	Depending on the substrate	≈ 0.3	0.25 - …
Levelling	Optional	1.5 - ...	
Waterproofing layer	POLYAC® BDM-M THIX	Approx. 1.5	Approx. 1.8
Protective wear layer	POLYAC® BDM-M THIX + broadcasted with dry quartz	Approx. 1.5 2 – 3	Approx. 1.8 4 – 6
Topcoat	POLYAC® 61-64 AF-65	0.6 – 1	0.6 – 1

OPTON 3: As a waterproofing system according to ETAG 005: Roofs, Balconies, Terraces, ...
Always apply 2 layers (waterproofing layer + protective layer). First apply the waterproofing layer POLYAC® BDM-M THIX with an enbedded reinforcement fleece POLYAC® REINFORCEMENT FLEECE. Spread a layer of POLYAC® BDM-M THIX on the surface (approx. 1mm thick). Immediately (wet in wet) apply the fleece in the resin without creases or bulbs and pour another sufficient amount (wet in wet) of POLYAC® BDM-M THIX onto this and spread out (approx. 1.5mm thick). After this waterproofing layer has cured, apply the protective layer POLYAC® BDM-M THIX, spread out and deaerate immediately with a spiked roller. Only this last layer is then fully broadcasted with dry quartz after spreading and levelling and this within the processing time described in this technical data sheet. Minimum quartz grain size is 0.4 - 0.8mm. Note: Do not disturb the paraffin layer that occurs during curing.

Layer	Product	Layer thickness mm	Consumption kg/m²
Primer	Depending on the substrate	≈ 0.3	0.25 - …
Levelling layer	Optional	1.5 - ...	
Waterproofing layer	POLYAC® BDM-M THIX POLYAC® REINFORCEMENT FLEECE POLYAC® BDM-M THIX	Approx. 1.0 Fleece Approx. 1.5	Approx. 1.0 Fleece Approx. 1.5
Protective wear layer	POLYAC® BDM-M THIX + fully and abundantly broadcasted with dry quartz	Approx. 1.5 2 – 3	Approx. 1.8 4 – 6
Topcoat	POLYAC® 61-64 AF-65	0.6 – 1	0.6 – 1

OPTION 4: As a waterproofing system according to ETAG 033: Waterproofing bridge deck - Trafficable zone with cast asphalt.
Always apply 2 layers (waterproofing layer + protective layer). Apply POLYAC® BDM-M THIX. Spread the mixture with a spatula, rake or toothed trowel. Deaeration and levelling with a spiked roller is recommended. After the first layer has cured, apply a second layer with a spatula, rake or toothed trowel. Deaerate and level with a spiked roller immediately. Only this last layer is then lightly broadcasted with dry quartz after spreading, levelling and deaerate. This within the processing time described in this technical data sheet. Minimum quartz grain size is 0.4 - 0.8 mm.
Note: Do not disturb the paraffin layer that occurs during curing.
A POLYAC® 17 intermediary primer is then applied to this system to optimise the adhesion of the cast asphalt to the installed POLYAC® system.

Layer	Product	Layer thickness mm	Consumption kg/m²
Primer	Depending on the substrate	≈ 0.3	0.25 - …
Levelling layer	Optional	1.5 - ...	...
Waterproofing layer	POLYAC® BDM-M THIX	Approx. 1.5	Approx. 1.8
Protective wear layer	POLYAC® BDM-M THIX + lightly broadcasted with dry quartz	Approx. 1.5 + 0.3	Approx. 1.8 + Approx. 120g/m²
Intermediary primer	POLYAC® 17	0.1- 0.2	0.1- 0.2 liter/m²
Finishing	Mastic Asphalt	...	...

OPTION 5: As a waterproofing system according to ETAG 033: Waterproofing bridge deck - directly charged parts.
Always apply 2 layers (waterproofing layer + protective layer). Apply POLYAC® BDM-M THIX. Spread the mixture with a spatula, rake or toothed trowel. Deaeration and levelling with a spiked roller is recommended. After the first layer has cured, apply a second layer with a spatula, rake or toothed trowel. Deaerate and level with a spiked roller immediately. Only this last layer is then fully broadcasted with dry quartz after spreading and levelling and this within the processing time described in this technical data sheet. Minimum quartz grain size is 0.4 - 08mm. Note: Do not disturb the paraffin layer that occurs during curing.

Layer	Product	Layer thickness mm	Consumption kg/m²
Primer	Depending on the substrate	≈ 0.3	0.25 - …
Levelling layer	Optional	1.5 - ...	...
Waterproofing layer	POLYAC® BDM-M THIX	Approx. 1.5	Approx. 1.8
Protective wear layer	POLYAC® BDM-M THIX + fully and abundantly broadcasted with dry quartz	Approx. 1.5 + 0.3	Approx. 1.8 4 - 6
Topcoat	POLYAC® 61-64 AF	0.6 – 1	0.6 – 1

FINISHING

OPTION 1, 2, 3, 5:
After 2 hours all loose quartz is removed and a POLYAC® topcoat can be applied. Always consult the POLYAC® primers technical data sheets.

OPTION 4:
After the last POLYAC® BDM-M THIX layer has cured, apply the intermediary primer POLYAC® 17. After applying POLYAC® 17 the cast asphalt must be applied within a few hours, but in any case the same day. When in doubt, it is recommended to perform an adhesion test in advance.

APPLICATION CONDITIONS

Conditions during the application and curing of the products.
The recommended processing temperature for substrate, environment, material and products is between +5 °C and +35 °C. For temperatures lower than +5 °C please contact KORACHEM NV.

Relative humidity: Max. 85%
Dew point: The temperature of the substrate and of the not fully cured product must be at least 3 °C higher than the dew point. Avoid condensation on the surface from the moment that the preparations start until the complete curing of the products. Ensure adequate ventilation and a low relative humidity during curing.

CLEANING AND MAINTENANCE

Clean the used tools with SOLVENT MEK or ethyl acetate before the curing of POLYAC® BDM-M THIX. Cured products residues must be removed mechanically.
For the cleaning and maintenance of the installed synthetic resin system, please refer to the information leaflets:
Cleaning and maintenance of synthetic resin floor systems - INDUSTRY
Cleaning and maintenance of synthetic resin floor systems - PUBLIC AND PRIVATE BUILDINGS.

COMPLIMENTARY PRODUCTS

- Cleaning solvent for tools: Solvent MEK or ethyl acetate
- POLYAC® CATALYST
- Pigment powder
- Dry sprinkling granulate
- Depending on the application: POLYAC® BDM-M+, POLYAC® REINFORCEMENT FLEECE, POLYAC® 17, POLYAC® primers and top layers.

ADVICE

Always consult all technical and safety data sheets of the products concerned.
For applications with heavy direct charge and friction, the protective layer can be replaced by a layer of POLYAC® 55 with POLYAC® SL 2 FILLER or POLYAC® SL 3 FILLER, broadcasted with quartz.

TECHNICAL DATA

APPEARANCE - COMPOSITION

Liquid, slightly pasty
Colour POLYAC® BDM-M THIX is standard white.
POLYAC® PTC: Colourless liquid.
If a colour other than the standard is desired, pigment powder can be added to the resin.

REACTION TIMES

Processing time after mixing: 10 to 15 min.
Traffickable: after 1 hour
Recoatable: after 1 hour
Fully mechanical load: after 2 hours
Full chemical resistance: after 2 hours
Times measured at 20°C; lower temperatures extend the curing time.

CONSUMPTION

POLYAC® BDM-M THIX consumption depends on the substrate and the project type.
The recommended minimum layer thickness of POLYAC® BDM-M THIX is 1.5 mm - 1.5 mm/layer = 1.8 kg/layer.

TECHNICAL DATA

Odour	Methyl methacrylate (See also information sheet "POLYAC® ODOUR")
Initiator: POLYAC® CATALYST	BPO 50%, depending on the temperature from 1 to 5 weight % calculated on the proportion of POLYAC® BDM-M THIX
Viscosity	18000 - 40000 mPa.s (EN ISO 3219 at 20 °C, Brookfield, spindle VII / 100 rpm)
Density	1.20 g/cm³ ±0.05 (EN ISO 2811-1 at 20 °C)
Flash point	10 °C (MMA, DIN 51 755)
Peak exotherm temp.	130 – 145 °C
POLYAC® BDM-M THIX 2.4% POLYAC® PTC + 2% POLYAC® CATALYST	
Density	1.2 kg/dm³
Colour	White
Shore D hardness	40 - 50

CHEMICAL RESISTANCES

Polymerized POLYAC® resins have good chemical resistance to alkalis, petroleum derivatives, acid, salts and maintenance products. For more information please contact KORACHEM NV.

REFERENCE DOCUMENTS

Information sheet "POLYAC® ODOUR".

FM 78518 EMS 716699

PACKAGING

POLYAC® BDM-M THIX	25.6 kg	25 kg Metal can
		0.6 kg Plastic bottle

To be ordered separately:

POLYAC® CATALYST	0.5 kg	Plastic pail
	5 kg	Plastic pail
	25 kg	Box

STORAGE AND SHELF LIFE

Store POLYAC® products in a dry, well-ventilated storage area between +5 and +35 °C. Shelf life: 12 months after production date.
In case of doubt, please contact KORACHEM NV and state the batch number on the packaging. Do not discharge into groundwater, surface water of sewers. Dispose of contaminated packaging and residues in accordance with the applicable legal requirements.

SAFETY PRECAUTIONS

Carefully read the safety data sheets before using POLYAC® products. A characteristic odour arises during processing. Ensure adequate ventilation, keep away from sources of ignition and do not smoke. Avoid skin contact. Eye irritation and/or hypersensitivity may occur with severe vapour concentration, inhalation and/or skin contact. Do not store food or drinks in the same workspace. Always wear personal safety equipment in accordance with the applicable local guidelines and legislation. Gloves and safety glasses are mandatory.

The above information is provided in good faith, but without any guarantees. The application, use and processing of the products are beyond our control and are, as such, the sole responsibility of the user/processor. In the event that Korachem NV is still held liable for damages, then the claim will still be limited to the value of the goods delivered. We always aim to deliver consistently high quality goods. All values on this technical sheet are average values that result from tests carried out under laboratory conditions (20 °C and 50% RH). Values that are measured on the construction site may show a slight deviation since the environmental conditions, the application, and the way of processing our products are beyond our control. Do not add any products other than those indicated on the technical documentation. This version replaces all previous versions. Version 2.0 Date: 13 August 2025 3:22 pm

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