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For further information please either give us a call or visit the manufacturer's website.

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Registered in England under Company No: 03746590 VAT No: 765 9995 45

WAKOL MS 228 Ready-to-lay Parquet Adhesive, elastic

Technical Information

Area of application

Elastic, single-component parquet adhesive for laying

- Multi-layer parquet according to DIN EN 13489

on properly prepared absorbent and non-absorbent subfloors indoors.

Use as a moisture barrier :

In conjunction with WAKOL Speciality Trowel 5 or WAKOL Speciality Trowel Blade 5 also suitable as adhesive with integrated moisture barrier exclusively for parquet flooring with tongue and groove joints on unheated cement screeds up to max. 4 CM% / 90% KRL and unheated concrete floors up to max. 6 by weight % / 90% KRL.

Special properties



- solvent-free as defined by TRGS 610
- complies with DIN EN ISO 17178
- water-free – no wood swelling

- 1) Based on the criteria of GEV (Association for Emission-controlled Laying Materials), classified as EMICODE EC1 PLUS: very low in emissions
- 2) M1 classification for construction products according to the guidelines of the institute "The Building Information Foundation RTS sr"
- 3) Emissions class according to French law
- 4) Laying materials containing methoxysilane
- 5) Emissions-certified construction product i.a.w. DIBt principles: Wakol GmbH, 66954 Pirmasens
- 6) Polish B mark for construction product i.a.w. EN ISO 17178
- 7) Connected Systems guarantee in the system with approved LOBADUR varnishes and LOBASOL oils from Loba. See <https://www.loba.de/en/products/connected-systems/>
- 8) Suitable for underfloor heating
- 9) Suitable for exposure to castor wheels

Technical data

Raw material base:	Silane-modified polymer
Setting time:	none
Open time:	approx. 40 minutes
Setting time:	approx. 24 - 48 hours
Cleaning agent:	WAKOL RT 5960 Cleaning Cloths before adhesive sets
Storage time:	18 months at room temperature
Storage temperature:	not sensitive to frost

Application and consumption¹⁰⁾

TKB B3	800-1000 g/m ²	Small-sized multi-layer parquet
TKB B11	1000-1200 g/m ²	Small-sized multi-layer parquet
TKB B13	1100-1300 g/m ²	Large-sized multi-layer parquet
TKB B15	1400-1500 g/m ²	Large-sized multi-layer parquet
WAKOL Speciality Trowel 5 WAKOL Speciality Trowel Blade 5	1700-1800 g/m ²	Multilayer parquet up to max. 4 CM% or 90% corresponding relative humidity

10) Consumption is dependent on surface structure and absorbability of subfloor.

Subfloors

The subfloor as well as the room climate conditions must meet the requirements of the applicable standards and data sheets. Subfloors must be permanently dry, solid, level, free from cracks, dirt and adhesion-inhibiting substances.

Mechanically pre-treat and thoroughly vacuum-clean calcium sulphate screeds according to the manufacturer's specifications or according to the applicable standards and data sheets. Provided that the existing screed is free from dust, the parquet can be bonded directly on the subfloor. If a primer is necessary WAKOL D 3055 Parquet Primer can be used on cement-based and calcium sulphate bonded screeds. Allow drying time of the primer.

When using WAKOL PU 280 Polyurethane Primer or WAKOL PU 235 Polyurethane Primer the direct bonding with WAKOL MS 228 Ready to lay Parquet Adhesive needs a minimum waiting time of 12 hours but within 72 hours after application of the primer. On unheated cement screeds up to 4 CM % or 90 % corresponding relative humidity, MS-Parquet Adhesive can be used as a moisture barrier.

Usage

Using a notched trowel, apply uniformly on the subfloor, without letting the adhesive pool.

Fit the parquet flooring immediately and press it down firmly. Ensure that the underside of each wooden element is sufficiently coated with adhesive.

Clean the tools using the WAKOL RT 5960 Cleaning Cloth immediately after use. After it has set completely, the adhesive can only be removed by machine.

Important

Processing not below floor temperature of +15 °C and room temperature of +18 °C, as well as room humidity preferably between 40 % and 65 %, maximum 75 %. All information is based on approx. 20 °C and 50 % relative air humidity. In cold weather, warm up all laying materials in a heated room before use.

Do not use WAKOL MS 228 Ready-to-lay Parquet Adhesive, elastic on mastic asphalt, WAKOL PU 280 Polyurethane Primer or WAKOL PU 235 Polyurethane Primer.

Adhesive in the parquet joint should generally be avoided as it may lead to undesired interactions with surface treatment products.

We guarantee the uniform high quality of our products. All data is based on tests and many years of practical experience and refers to standardised conditions. The variety of materials used and the different construction site conditions, which lie beyond our control, preclude any claims based on this data. We therefore recommend making sufficient trials. Accompanying flooring manufacturer's instructions and the current national standards must be observed. We gladly provide technical advice.

The product data sheets can be found in their latest version at www.wakol.com.

This Technical Information of 24.07.2023 supersedes all previous versions.

Material safety data sheet
according to 1907/2006/EC, Article 31

Printing date 15.02.2018

Version number 6

Revision: 15.02.2018

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** WAKOL MS 228 Ready-to-lay Parquet Adhesive, elastic
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Adhesives
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
WAKOL GmbH
Bottenbacher Str. 30
D-66954 Pirmasens
info@wakol.com
+49 6331 8001 0
- **Informing department:**
Product safety department.
msds@wakol.de
- **1.4 Emergency telephone number:**
Emergency CONTACT (24-Hour-Number):
GBK GmbH +49 (0)6132-84463

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
The product is not classified, according to the CLP regulation.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Adhesive
- **Dangerous components:** Void
- **Additional information** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information** No special measures required.
- **After inhalation** Supply fresh air; consult doctor in case of complaints.
- **After skin contact** Clean with water and soap. If possible, also wash with polyethylene glycol 400.
- **After eye contact** Rinse opened eye for several minutes under running water.
- **After swallowing** Do not induce vomiting; call for medical help immediately.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

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- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use fire extinguishing methods suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Ensure adequate ventilation
- **6.2 Environmental precautions:** No special measures required.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Use only in well ventilated areas.
- **Information about protection against explosions and fires:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Protect from humidity and water.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **8.1 Control parameters**
- **Components with critical values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:**
The lists valid during the making were used as basis.
See Section 10.

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- **8.2 Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**
The usual precautionary measures are to be adhered to when handling chemicals.
Wash hands before breaks and at the end of work.
- **Breathing equipment:** Not necessary if room is well-ventilated.
- **Protection of hands:**



Protective gloves

Preventive skin protection by use of skin-protecting agents is recommended.

- **Material of gloves**
Rubber gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Safety glasses

- **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Pasty
Colour:	Cream coloured
- **Smell:** Odourless
- **Odour threshold:** Not determined.
- **pH-value:** Not determined.
- **Change in condition**

Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	394 °C
- **Flash point:** Not applicable.
- **Inflammability (solid, gaseous)** Not applicable.
- **Ignition temperature:** 330 °C
- **Decomposition temperature:** Not determined.
- **Self-inflammability:** Product is not selfigniting.

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- **Explosive properties:** *Product does not present an explosion hazard.*
- **Critical values for explosion:**
 - Lower: Not determined.*
 - Upper: Not determined.*
- **Steam pressure:** *Not determined.*
- **Density at 20 °C** *1.78 g/cm³ (EN ISO 2811-1)*
- **Relative density** *Not determined.*
- **Vapour density** *Not determined.*
- **Evaporation rate** *Not determined.*
- **Solubility in / Miscibility with**
 - Water: Not miscible or difficult to mix.*
- **Partition coefficient: n-octanol/water:** *Not determined.*
- **Viscosity:**
 - dynamic at 20 °C: 80000 mPas (ISO 2555)*
 - kinematic: Not determined.*
- **Solvent content:**
 - Organic solvents: 0.0 %*
 - Water: 0.0 %*
 - VOC 0.0 %*
 - 0.00 %*
- **9.2 Other information** *No further relevant information available.*

SECTION 10: Stability and reactivity

- **10.1 Reactivity** *No further relevant information available.*
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.*
- **10.3 Possibility of hazardous reactions** *Reacts with strong acids and oxidising agents.*
- **10.4 Conditions to avoid** *No further relevant information available.*
- **10.5 Incompatible materials:** *No further relevant information available.*
- **10.6 Hazardous decomposition products:** *No dangerous decomposition products known.*
- **Additional information:** *Product releases low quantities of methanol during appropriated application.*

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** *Based on available data, the classification criteria are not met.*
- **Primary irritant effect:**
- **Skin corrosion/irritation** *Based on available data, the classification criteria are not met.*
- **Serious eye damage/irritation** *Based on available data, the classification criteria are not met.*
- **Respiratory or skin sensitisation** *Based on available data, the classification criteria are not met.*
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** *Based on available data, the classification criteria are not met.*
- **Carcinogenicity** *Based on available data, the classification criteria are not met.*
- **Reproductive toxicity** *Based on available data, the classification criteria are not met.*
- **STOT-single exposure** *Based on available data, the classification criteria are not met.*

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- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Smaller quantities can be disposed of with household waste.
- **European waste catalogue**
08 00 00 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 04 00 wastes from MFSU of adhesives and sealants (including waterproofing products)
08 04 10 waste adhesives and sealants other than those mentioned in 08 04 09
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- **14.1 UN-Number**
- **ADR, ADN, IMDG, IATA** Void
- **14.2 UN proper shipping name**
- **ADR, ADN, IMDG, IATA** Void
- **14.3 Transport hazard class(es)**
- **ADR, ADN, IMDG, IATA**
- **Class** Void
- **14.4 Packing group**
- **ADR, IMDG, IATA** Void
- **14.5 Environmental hazards:**
- **Marine pollutant:** No
- **14.6 Special precautions for user** Not applicable.

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- **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** *Not applicable.*
- **Transport/Additional information:** *Not dangerous according to the above specifications.*
- **UN "Model Regulation":** *Void*

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- *Directive 2012/18/EU*
- *Named dangerous substances - ANNEX I None of the ingredients is listed.*
- *National regulations*
- *Other regulations, limitations and prohibitive regulations*
- *GEV-Guideline/EMICODE: EC 1 plus R, "very low emission"*
- *VOC:*
- *VOC (EU) 0,0 g/l*
- **15.2 Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Abbreviations and acronyms:**
 - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*
 - IMDG: International Maritime Code for Dangerous Goods*
 - IATA: International Air Transport Association*
 - GHS: Globally Harmonised System of Classification and Labelling of Chemicals*
 - EINECS: European Inventory of Existing Commercial Chemical Substances*
 - ELINCS: European List of Notified Chemical Substances*
 - CAS: Chemical Abstracts Service (division of the American Chemical Society)*
 - VOC: Volatile Organic Compounds (USA, EU)*
 - MAL-Code: Måleteknisk Arbejdshygiejnisk Luftebehov (Regulation for the labeling concerning inhalation hazards, Denmark)*
 - PBT: Persistent, Bioaccumulative and Toxic*
 - vPvB: very Persistent and very Bioaccumulative*