

BOTAMENT® M 21 P

Flexible Superior Adhesive White C2 TE



BOTAMENT® M 21 P is a flexible, white thin-bed adhesive for the fitting of almost all ceramic wall and floor coverings as well as natural stone slabs that are not susceptible to discolouration in interior and exterior areas.

Properties

- ❖ Flexible
- ❖ High stability
- ❖ For heated areas
- ❖ Suitable for tile on tile fitting
- ❖ Long correction and open time

Application Areas

Bonding of

- ❖ vitreous stoneware and porcelain
- ❖ non-vitreous stoneware
- ❖ split tiles
- ❖ floor clinker slabs and clinker tiles
- ❖ hand-made tiles
- ❖ small and medium-sized mosaics
- ❖ insulation and lightweight building boards
- ❖ natural stone slabs that are not susceptible to discolouration

Very smooth boards (e.g. rigid foam slabs) must be roughened up prior to bonding.

Suitable substrates

- ❖ concrete, lightweight concrete, and porous concrete
- ❖ joint full brickwork
- ❖ plasters of the mortar categories CS II, CS III and CS IV in accordance with DIN EN 998 and gypsum plaster in accordance with DIN EN 13279 (compressive strength $\geq 2.5 \text{ N/mm}^2$)
- ❖ BOTAMENT® building boards
- ❖ old tiling
- ❖ gypsum walls, gypsum plaster boards and gypsum fibreboards
- ❖ cement screeds and calcium sulphate screeds
- ❖ sanded mastic asphalt screeds (IC 10)

Application on porous concrete and mastic asphalt screeds is only permissible in interior areas.

Technical data

material basis	cement combination with mineral fillers and additives
packaging	5 kg bag 25 kg bag
storage	cool and dry at least 12 months in its original sealed container
density	~ 1.6 kg/ dm ³
temperature resistance	- 20 °C up to + 80 °C
optimal water-solid ratio	~ 29 %
mixing ratio	~ 7,25 l of water / 25 kg
maturing time	5 minutes
open time	~ 30 minutes
working time	~ 3 hours
max. layer thickness	5 mm
walkable	after ~ 24 hours
ready to be grouted	after ~ 24 hours
fully loadable	after ~ 7 days
consumption	
6 mm notched trowel	~ 2.4 kg/m ²
8 mm notched trowel	~ 3.2 kg/m ²
10 mm notched trowel	~ 3.8 kg/m ²
application and substrate temperature	+ 5 °C to + 30 °C
cleaning agent	
when fresh	water
when fully cured	cement laitance remover

All times stated refer to the standard atmosphere of + 23 °C and 50 % relative humidity.

Higher temperatures and lower humidity accelerate, while lower temperatures and higher humidity delay processing time and curing.

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Substrate preparation

The substrate must be in the following condition:

- ❖ dry, clean and frost-free
- ❖ stable
- ❖ free from grease, paint, cement laitance, separating agents, sinter layers and loose particles
- ❖ in true alignment and perpendicular

Please also note:

- ❖ unevenness of wall and floor surfaces are to be levelled with BOTACEM® M 90 levelling filler or M 100 levelling mortar
- ❖ carry out large surface floor levelling with levelling compounds BOTACEM® M 50, M 51, M 52 Duoplan or M 53 Extra
- ❖ absorbent substrates must be primed with BOTAMENT D 11
- ❖ where the substrate is gypsum → minimum layer: 10 mm surface condition: rough, not felted or smoothed
- ❖ perform a Concrete Moisture Test to check the residual moisture in cement and calcium sulphate screeds and for plasters

maximum permissible residual moisture		
substrate	unheated	heated
cement screed	2.0 %	2.0 %
calcium sulphate screed	0.5 %	0.3 %
plaster	1.0 %	

If the substrate is made from non-absorbent material or is made of old tiles, it must first be primed either using BOTAMENT® D 15 (only to be used in interior areas) or must receive a scratch coat 24 hours prior to installation using BOTAMENT® M 21 P, the mixing water of which must be made up to 1/3 of BOTAMENT® D 10 bonding emulsion. Concrete substrates must be at least 6 months old. An earlier installation from an age of just 3 months is possible if the mixing water of BOTAMENT® 21 P is made up to 1/3 of BOTAMENT® D 10 bonding emulsion. When laying onto sanded mastic asphalt screeds the mixing water must be enhanced in the same way, using BOTAMENT® D 10.

Application

- ❖ mix up using cold, clean water while stirring with a slow rotating agitator until a homogenous, stiff and paste-like mass has formed
- ❖ briefly stir again after the maturing time
- ❖ first apply a thin contact layer of BOTAMENT® M 21 P using the smooth side of the notched trowel onto the substrate
- ❖ then apply BOTAMENT® M 21 P onto the fresh contact layer with the notched side of the trowel
- ❖ press tiles using light pressure and a side-to-side movement into the adhesive bed and position

Important Tips

When installing ceramic coverings all existing standards and guidelines in their current versions must be observed.

You can view or download the safety datasheet at www.botament.com.

To achieve optimal results we recommend conducting a site-specific test sample prior to using.

When fitting larger tiles (especially in connection with heated constructions) and for works in exterior areas, we recommend the use of BOTAMENT® M 21 P in the combined method or the use of a pourable bed adhesive from our product range.

When bonding insulation boards the current regulations must be observed.

If the substrate is made of gypsum-containing material, the respective manufacturer's guidelines must be observed.

BOTAMENT® M 21 P must only be mixed with the additives mentioned in this data sheet.

Important Notice: The information provided here is based on our experience and is given to the best of our knowledge, but is non-binding. All instructions must be adapted to suit the individual building projects, the application purpose and the specific local conditions. Given these preconditions we shall be liable for the accuracy of the information given as outlined in our sales and delivery terms and conditions. Recommendations by our employees that deviate from this information are only binding for us if they have been confirmed in writing. In any case, the generally accepted technical rules must be adhered to. Edition GB-1208. Further technical details can be found in our technical data sheets on our website: www.botament.com.
MC Building Chemicals • Castleblayney • Co. Monaghan

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 08.05.2018



Revision: 16.03.2018

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

- **1.1 Product identifier**
- **Trade name** M 21 P
- **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** Tile adhesive
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:** BOTAMENT Systembaustoffe
Am Kruppwald 1
D-46238 Bottrop

Tel.: ++49(0)2041 101-90
Fax.: ++49(0)2041 101-988
- **Informing department:** Product safety department.
msds@botament.com
- **1.4 Emergency telephone number:** Tel.: +49 / (0)700 24112112 (MCR)
Tel.: +48612864565

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
Skin Irrit. 2 H315 Causes skin irritation.
Eye Dam. 1 H318 Causes serious eye damage.
STOT SE 3 H335 May cause respiratory irritation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**

GHS05 GHS07
- **Signal word** Danger
- **Hazard-determining components of labelling:** Cement, portland, chemicals
Cr(VI)<2ppm
- **Hazard statements** H315 Causes skin irritation.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.
- **Precautionary statements** P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.

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P321 Specific treatment (see on this label).
P362+P364 Take off contaminated clothing and wash it before reuse.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.

- **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:** Mixture consisting of the following components.

· **Dangerous components:**

CAS: 65997-15-1	Cement, portland, chemicals	25-50%
EINECS: 266-043-4	Cr(VI)<2ppm Eye Dam. 1, H318; Skin Irrit. 2, H315; STOT SE 3, H335	

- **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**
- **After inhalation** Supply fresh air.
- **After skin contact** Instantly wash with water and soap and rinse thoroughly.
- **After eye contact** Rinse opened eye for several minutes under running water.
Seek medical treatment.
- **After swallowing** Rinse out mouth and then drink plenty of water.
Seek medical treatment.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **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** Use fire fighting measures that suit the environment.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

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SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** *Not required.*
- **6.2 Environmental precautions:** *No special measures required.*
- **6.3 Methods and material for containment and cleaning up:** *Collect mechanically.*
- **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 information on disposal.*

* **SECTION 7: Handling and storage**

- **7.1 Precautions for safe handling** *Prevent formation of dust.*
- **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:** *Keep container tightly sealed.*
- **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:**

65997-15-1 Cement, portland, chemicals
Cr(VI)<2ppm

WEL	Long-term value: 10* 4** mg/m ³ *inhalable dust **respirable dust
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- **Additional information:** *The lists that were valid during the compilation were used as basis.*

- **8.2 Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**

*Keep away from foodstuffs, beverages and food.
Instantly remove any soiled and impregnated garments.
Wash hands during breaks and at the end of the work.
Avoid contact with the eyes and skin.*

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- **Breathing equipment:** *In case of brief exposure or low pollution use breathing filter apparatus. In case of intensive or longer exposure use breathing apparatus that is independent of circulating air.*
- **Protection of hands:** *Protective gloves.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
After use of gloves apply skin-cleaning agents and skin cosmetics.*
- **Material of gloves** *Strong 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 trough time has to be found out by the manufacturer of the protective gloves and has to be observed.*
- **Eye protection:** *Safety glasses
Tightly sealed 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:	Powder
Colour:	Light grey
Smell:	Odourless

· **Change in condition**

Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	Not determined Not applicable

· **Flash point:** *Not applicable*

· **Self-inflammability:** *Product is not selfigniting.*

· **Explosive properties:** *Product is not explosive.*

· **Density** *Not determined*

· **Solubility in / Miscibility with**

Water: *Unsoluble*

· **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.*

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- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **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

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** Causes skin irritation.
- **Serious eye damage/irritation** Causes serious eye damage.
- **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** May cause respiratory irritation.
- **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:** Do not allow undiluted product or large quantities of it to reach ground water, water bodies 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** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

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- **Uncleaned packagings:**
- **Recommendation:** *Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.*

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

SECTION 15: Regulatory information

- **15.2 Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases** *H315 Causes skin irritation.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.*
- **Department issuing data specification sheet:** *Environment protection department.*
- **Contact:** *Mr. Hemming*
- **Abbreviations and acronyms:** *RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
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*

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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)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

*** Data compared to the
previous version altered.**

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