

ZeroPlus™

Bed Joint Mortar for Porotherm Cellular Clay Masonry

ZeroPlus™ When you need to build in the cold, fast.

Porotherm ZeroPlus™, Mortar from Wienerberger, allows you to build in lower temperatures.

Unlike existing thin-joint and conventional mortars that are for use at 3°C and above, ZeroPlus™ mortar is designed to work at temperatures from 0°C and rising.

Wienerberger has developed ZeroPlus™ to work exclusively with the Porotherm Cellular Clay Block Walling System.

- **Maximising build time in winter** – earlier starts on cold days
- **Extra build time in winter** – up to 2 weeks additional build time
- **Reducing downtime** – reduced risk of stoppages for building contractors
 - **Proven performance** - validated by Lucideon
 - **Supplied free** – with the Porotherm clay block walling system

ZeroPlus™ and Porotherm, keeping Britain building all year round.

Storage and Processing Instructions
Available as 12.5kg bag

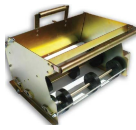
Two methods of application are suitable for ZeroPlus™ mortar.

Standard Roller
(JK Core Range)



3.1 ltr water per
12.5kg bag

Sledge Roller
(Monolithic Range)



2.8 ltr water per
12.5kg bag

APPLICATION METHOD

Stir quickly and vigorously (using an agitator / paddle mixer) until a smooth, lump free consistency is produced. Allow to stand for 5 minutes and then stir again.

The mixed mortar is transferred from the bucket into the special Porotherm mortar roller. Mortar is normally applied to a 5 to 6m length of horizontal joint using the designated mortar roller. The speed of rolling with either roller and the angle of application with the standard roller must be adjusted to ensure that an even mortar layer is applied and covers the entire surface area of the horizontal joint.

Processing Time: Protected mortar; Approximately 4 hours at 20°C, but will be extended at lower temperatures and reduced at higher temperatures. The mortar can be periodically re-mixed but no further water should be added.

Processing Temperature: Use only when the air temperature is at least 0°C and rising. Please be aware that internal situations may be colder than external and any wind chill factor must be taken in to consideration. Do not use when blocks or existing work are frozen. Do not mix with water that is partially frozen or is thawing.

Mixing water should always be from a mains tap that has not been frozen. In addition, early strength development will be reduced at low temperatures and therefore, the blocks and mortar must be adequately protected at all times with appropriate insulating covers prior to and after application so that fresh masonry does not fall below 0°C. Mixing in an insulated bucket with an insulated lid is strongly recommended.

HEALTH & SAFETY WARNING POROTHERM ZERO PLUS

Label In Accordance With (EC) No. 1272/2008

CONTAINS ORDINARY PORTLAND CEMENT

Hazard Statements

- | | |
|------|--------------------------------------|
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H335 | May cause respiratory irritation. |

Precautionary Statements

- | | |
|--------------|--|
| P102 | Keep out of reach of children. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P261 | Avoid breathing dust. |
| P262 | Do not get in eyes, on skin, or on clothing. |
| P305+351+338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P337+313 | If eye irritation persists: Get medical advice/attention. |
| P501 | Dispose of contents/container in accordance with local regulations. |

SUPPLIER

Wienerberger Ltd
Wienerberger House, Brooks Drive, Cheadle
Cheshire, SK8 3SA 0161 491 8200



The information provided herein is based on extensive tests and practical experience. It does not apply to every application situation. For this reason we recommend that suitable site trials are carried out to determine optimum procedures.



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Wienerberger Ltd
Brooks Drive
Cheadle le Royal Business Park
Cheshire
SK8 3SA

WIEN0001

EN 998-2:2010-12

POROTHERM ZERO PLUS
Designed thin layer mortar for internal and external use in elements subject to structural movements

Compressive strength
Initial shear strength
Contents of chloride
Reaction to Fire
Water absorption
Water vapour permeability coefficient
Thermal conductivity/density
W/(m.K)
Aggregate size
Correction time
Workable life
Durability against freeze thaw

Category M10
0.3N/mm²/dec. value
0.0.% Cl
Class A1
0.07kg/m²min^{0.5}
µ = 25
λ_{0.05} = 1.17
dec based on density
< 1mm
> 7 minutes
> 2 hours
Evaluation based on provisions valid in the intended place of use of the mortar

Dangerous substances

see safety data sheet



Our general terms and conditions apply. The product has a shelf life of at least 12 months when stored correctly. Conforms to EN 998-2.

For full conditions of use contact the
Porotherm team on 0161 491 8200
www.wienerberger.co.uk/porotherm

12.5kg

Wienerberger

SAFETY DATA SHEET POROTHERM ZERO PLUS

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name POROTHERM ZERO PLUS

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Mortar
Uses advised against No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier Wienerberger Ltd
Wienerberger House
Brooks Drive
Cheadle
Cheshire
SK8 3SA
0161 491 8200
Contact Person WBUKPorotherm@wienerberger.com

1.4. Emergency telephone number

0161 491 8200 (9am-5pm)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and Chemical Hazards	Not classified.
Human health	Skin Irrit. 2 - H315; Eye Dam. 1 - H318; Skin Sens. 1 - H317; STOT SE 3 - H335
Environment	Not classified.

Classification (1999/45/EEC) Xi; R37/38, R41. R43.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Human health

When the cement based powder is mixed with water or admixture, a strongly alkaline paste is produced. Cement based products may, until set, cause both irritant and allergic contact dermatitis. Irritant contact dermatitis is due to a combination of the wetness, alkalinity and abrasiveness of the constituent materials. Allergic contact dermatitis is caused mainly by the sensitivity of the individual's skin to hexavalent chromium salts. Corrosive. Prolonged contact causes serious eye and tissue damage.

Environment

The product is not expected to be hazardous to the environment.

2.2. Label elements

Contains ORDINARY PORTLAND CEMENT

Label In Accordance With (EC) No. 1272/2008



Signal Word Danger

Hazard Statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.

POROTHERM ZERO PLUS

Precautionary Statements	H335	May cause respiratory irritation.
	P102	Keep out of reach of children.
	P280	Wear protective gloves/protective clothing/eye protection/face protection.
	P261	Avoid breathing dust.
	P262	Do not get in eyes, on skin, or on clothing.
	P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Supplementary Precautionary Statements	P337+313	If eye irritation persists: Get medical advice/attention.
	P501	Dispose of contents/container in accordance with local regulations.
	P264	Wash contaminated skin thoroughly after handling.
	P302+352	IF ON SKIN: Wash with plenty of soap and water.
	P402	Store in a dry place.

2.3. Other hazards

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

ORDINARY PORTLAND CEMENT	10-30%
CAS-No.: 65997-15-1	EC No.: 266-043-4
Classification (EC 1272/2008) Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Skin Sens. 1 - H317 STOT SE 3 - H335	Classification (67/548/EEC) Xi;R37/38,R41. R43.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Composition Comments

This product contains a reducing agent to ensure that the CrVI content of the cement in the product remains below 2ppm during the defined shelf life of the product.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General information

Consult a physician for specific advice.

Inhalation

Move the exposed person to fresh air at once. Rinse nose and mouth with water. Get medical attention if any discomfort continues.

Ingestion

NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Rinse mouth thoroughly. Get medical attention immediately!

Skin contact

Remove affected person from source of contamination. Remove contaminated clothing. Wash the skin immediately with soap and water. Get medical attention if irritation persists after washing.

Eye contact

Remove victim immediately from source of exposure. Do not rub eye. Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Get medical attention immediately. Continue to rinse.

4.2. Most important symptoms and effects, both acute and delayed

Inhalation

Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.

Ingestion

May cause chemical burns in mouth and throat.

Skin contact

May cause serious chemical burns to the skin.

Eye contact

May cause severe irritation to eyes. May cause blurred vision and serious eye damage.

4.3. Indication of any immediate medical attention and special treatment needed

POROTHERM ZERO PLUS

No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, GET MEDICAL ATTENTION PROMPTLY!

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

The product is not flammable. Use fire-extinguishing media appropriate for surrounding materials.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

During fire, toxic gases (CO, CO₂) are formed.

Unusual Fire & Explosion Hazards

No unusual fire or explosion hazards noted.

Specific hazards

In case of fire, toxic gases may be formed.

5.3. Advice for firefighters

Special Fire Fighting Procedures

No specific fire fighting procedure given.

Protective equipment for fire-fighters

Wear full protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Do not discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Avoid contact with skin or inhalation of spillage, dust or vapour. Dampen spillage with water. Absorb in vermiculite, dry sand or earth and place into containers. Do not contaminate water sources or sewer. Shovel into dry containers. Cover and move the containers. Flush the area with water.

6.4. Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid spilling, skin and eye contact. Provide good ventilation. Avoid handling which leads to dust formation.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool and well-ventilated place. Keep in original container.

7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
ORDINARY PORTLAND CEMENT	WEL		4 mg/m ³			

WEL = Workplace Exposure Limit.

Ingredient Comments

WEL = Workplace Exposure Limits

POROTHERM ZERO PLUS

8.2. Exposure controls

Protective equipment



Process conditions

Provide eyewash station.

Engineering measures

Provide adequate ventilation. Observe Occupational Exposure Limits and minimise the risk of inhalation of vapours.

Respiratory equipment

If ventilation is insufficient, suitable respiratory protection must be provided. Dust mask/respirator.

Hand protection

Use suitable protective gloves if risk of skin contact.

Eye protection

Wear splash-proof eye goggles to prevent any possibility of eye contact.

Other Protection

Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene measures

DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Powder, dust
Solubility	Slightly soluble in water.
pH-Value, Conc. Solution	12-13

9.2. Other information

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No specific reactivity hazards associated with this product.

10.2. Chemical stability

Stable under normal temperature conditions.

10.3. Possibility of hazardous reactions

Not applicable.

10.4. Conditions to avoid

Avoid contact with acids. Water, moisture.

10.5. Incompatible materials

Materials To Avoid

Strong acids. Aluminium powder

10.6. Hazardous decomposition products

Fire creates: Carbon monoxide (CO). Carbon dioxide (CO₂).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

POROTHERM ZERO PLUS

Inhalation

May cause irritation to the respiratory system. May cause damage to mucous membranes in nose, throat, lungs and bronchial system. Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Ingestion

Ingestion may cause severe irritation of the mouth, the oesophagus and the gastrointestinal tract.

Skin contact

The product contains a small amount of sensitising substance which may provoke an allergic reaction among sensitive individuals after repeated contact.

Eye contact

Risk of serious damage to eyes. May cause chemical eye burns.

Health Warnings

Repeated exposure in excess of the WEL has been linked with rhinitis and coughing. Skin exposure has been linked to allergic chromium dermatitis.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

The product may affect the acidity (pH-factor) in water with risk of harmful effects to aquatic organisms.

12.1. Toxicity

The product is not expected to be hazardous to the environment (LC50 aquatic toxicity rating not determined). The addition of cement based product to water will, however, cause the pH to rise and may, therefore, be toxic to aquatic life in some circumstances.

12.2. Persistence and degradability

Not relevant. After hardening, cement presents no toxicity risks.

Degradability

There are no data on the degradability of this product.

12.3. Bioaccumulative potential

Bioaccumulative potential

No data available on bioaccumulation.

12.4. Mobility in soil

Mobility:

The product is non-volatile. The product is insoluble in water and will sediment in water systems.

12.5. Results of PBT and vPvB assessment

No information available.

12.6. Other adverse effects

None known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements. Product that contains >2ppm CrVI should be disposed of according to local legislation or should be treated with a reducing agent before use. Product that is within shelf life may be hydrated with water and disposed of according to local legislation. The hydrated product is not hazardous.

SECTION 14: TRANSPORT INFORMATION

General	The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).
Road Transport Notes	Not Classified
Rail Transport Notes	Not classified.
Sea Transport Notes	Not classified.
Air Transport Notes	Not classified.

14.1. UN number

POROTHERM ZERO PLUS

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

Not applicable.

Transport Labels

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant

No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Statutory Instruments

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).

Approved Code Of Practice

Safety Data Sheets for Substances and Preparations. Classification and Labelling of Substances and Preparations Dangerous for Supply.

Guidance Notes

Workplace Exposure Limits EH40. CHIP for everyone HSG(108).

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Revision Comments

1

Issued By Technical Manager

Revision Date 30.09.16

Date

Risk Phrases In Full

R37/38 Irritating to respiratory system and skin.

R43 May cause sensitisation by skin contact.

R41 Risk of serious damage to eyes.

Hazard Statements In Full

H318 Causes serious eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.