

PRODUCT INFORMATION

Asplit K 14

PRODUCT DESCRIPTION

Asplit K 14 is a potassium silicate mortar with corresponding chemical but higher thermal resistance compared to conventional potassium silicate mortars.

FIELDS OF APPLICATION

Asplit K 14 is used as temperature and chemical resistant mortar for brick linings with refractory and acid proof bricks. **Asplit K 14** is suitable for all refractory brick linings, which cannot be done with fireclay mortar, because of its lower mechanical and chemical resistance.

Working with **Asplit K 14** the drying processes can be shortened by mixing, because the mixing is without water and is applied on dry brick material.

Asplit K 14 is used mainly for brick linings in ovens, such as rotary kilns; drying drums; roasting ovens; sulphate ovens and especially where SO₂ and SO₃ gases are released and in corresponding temperatures, where refractory mortars are used; such as in ovens on cooling cladding, such as, oven walls or T-Joints in Ovens.

Except to hydrofluoric acid, **Asplit K 14** is resistant to all acids, solvents, oxidising agents, oils and fats; but is not resistance to alkalis.

FEATURES

- Hardening at room temperature therefore self-supporting brickwork, even before sintering
- Fast sintering, which prevents the mortar flowing out of the joints
- Temperature Resistance up to +1400° C
- The expansion coefficient is similar to ceramic bricks

CHEMICAL RESISTANCE

Information on the chemical resistance properties is available upon request.

SUBSTRATE

Components shall be designed and manufactured in accordance with EN 14879-1. Before start of brick lining work, the suitability of the surface preparation measures according EN 14879-1 must be checked and recorded.

SURFACE PRE-TREATMENT

C-STEEL

Surfaces must be clean, dry and free of contaminants. All contaminants, including non-visible detectable contaminants, must be removed in accordance with DIN TR 55684 and EN ISO 8502.

Non-alloyed steel surfaces shall be abrasive blasted to "Near White Metal" in accordance with EN ISO 12944-4. A surface preparation degree of SA 2½ (SSPC-SP 10; NACE No. 2) as specified in EN ISO 8501-1 and a "medium (G)" roughness degree as specified in EN ISO 8503-2 must be achieved. A minimum surface profile of R_z ≥ 70 µm is required.

To prevent flash rust, the primer must be applied immediately after the blasting and cleaning of the substrate or the component must be air conditioned to a relative humidity of ≤ 40%.

ENVIRONMENTAL CONDITIONS

The specified environmental conditions must be observed during surface preparation and brick lining and be tested and recorded according EN 14879-6.

Environmental Conditions	Value
Relative Humidity	≤ 80%
Surface Temperature	≥ +10°C up to +30°C
Application Temperature	+20°C ± 5°C recommended
Dew Point Distance	min. 3K

APPLICATION

The execution of the brick lining work is only permitted, if the requirements of „Surface Pre-treatment“ and „Environmental Conditions“ are met.

The Scratch Coat is applied on the substrate by using a wide brush or a lambs wool roller.

Asplit K 14 is applied on the substrate or sealing layer by using a mortar trowel. Tiles and bricks must be free of voids, fully bedded and hollow jointed

WORK TOOLS

The following tools are essential for the application:

- Stirrer (max. 300 r/min.)
- Measuring cup & Mixing vessels
- Flat / wide brush / lambs wool roller
- Mortar trowel
- Grouting tool
- Miscellaneous (safety glasses, rubber gloves etc.)

MIXING RATIO

Pour **Asplit K 14 SOLUTION** in a mixing vessel and add **Asplit K 14 POWDER** at the specified mixing ratio. The stirring of the merged components should be at least 3 minutes and must result in a homogeneous mixture.

Scratch Coat for 1m ²	Parts by Weight [kg]	Parts by Volume [Liter]
Asplit K 14 SOLUTION	100	2.00
Asplit K 14 POWDER	100	1.89

Asplit K 14	Parts by Weight [kg]	Parts by Volume [Liter]
Asplit K 14 SOLUTION	100	2.00
Asplit K 14 POWDER	300	5.66

CONSUMPTION

Bedding and jointing (Bed Joint 5 mm / Cross Joint 5-7 mm)

Material	Sizes [mm]	Coverage [kg/m ²]
Tiles	240 x 115 x 20	ca. 15
Tiles	240 x 115 x 40	ca. 19
Bricks	240 x 115 x 65	ca. 23
Bricks	240 x 115 x 80	ca. 26

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POT LIFE (20°C)

Product	Time [min]
Asplit K 14	ca. 40

CURING (20°C)

Load Capacity	Time
Load	ca. 48 h

POST TREATMENT

The brickwork and flooring, with **Asplit K 14** does not have to be post thermally treated after brick laying.

COMMISSIONING

Brick and tile linings with **Asplit K 14** can be exposed to chemical stresses of fluids, at the earliest after 5 days; except when the liquid temperature is +150°C, then there should be a time lapse of 8 -10 days after completion. In the case of chimneys, the actual Norms and Guidelines should be followed.

CLEANING

Clean all equipment with **SOLVENT T-200** or water immediately after use. The cleaning is done while the material is still not hardened.

SAFETY MEASURES

The material safety data sheets of the individual components, the safety instructions on the packing (label) as well as the legal requirements for handling hazardous materials must be observed.

PACKING UNITS

The products are supplied in the following standard package sizes:

Product	Size	Article No.
Asplit K 14 SOLUTION	20 kg	592 0245
Asplit K 14 SOLUTION	270 kg	592 0250
Asplit K 14 SOLUTION	1000 kg	592 0240
Asplit K 14 POWDER	25 kg	592 0190
SOLVENT T-200	4 kg	590 0610
SOLVENT T-200	8 kg	590 0611

STORAGE

The products must be stored in a cool and dry place, away from direct sunlight. At the specified storage temperatures a shelf life of the products is given of at least for the following periods:

Product	Temperature	Shelf Life
Asplit K 14 SOLUTION	≤ +30°C	24 Months
Asplit K 14 POWDER	-	24 Months
SOLVENT T-200	5 - 25°C	60 Months

If the storage time is exceeded, the materials must be tested before use. Higher storage and transport temperatures will reduce the shelf life. The containers must be kept tightly closed. Liquid products must be stored frost-proof. In addition, the DIN 7716 must be observed.

Technical Data	Standard	Unit	Value
Flexural Strength	EN ISO 178	N/mm ²	6
Density (Mixture)	EN ISO 2811 (ASTM D1475)	g/cm ³	2.0
Compressive Strength	EN ISO 604	N/mm ²	20
Max. Operating Temperature Dry	-	°C	+1400

Note: The indicated temperatures are dependent on the present load and may vary

Information given in the fact sheet above corresponds to the current knowledge available to us regarding our products at the time of its drafting and is intended as a guideline for informational purposes. However, because of the multiple possibilities regarding possible applications, processing and on site conditions, any information given in the fact sheet above is not legally binding, in particular, without being limited to, such information shall not be interpreted as a warranty of merchantability or of fitness for a particular purpose. Customer therefore is advised to conduct its own testing or make an inquiry with our technical department before ordering. We reserve the right to change the product at any time, in particular, without being limited to, minor changes because of advancements in technology. If by way of exception, the information given in the fact sheet above is incorporated by reference into any contract concluded with us under German Law, such information, shall only be interpreted as determining the specific requirements of the contractual products as set out in § 434 BGB (German Civil Code) and shall not be interpreted as constituting a guarantee of condition.

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Replaces all previous editions	PRODUCT INFORMATION	Page: 2/2