

PRODUCT INFORMATION

Asplit HSP

PRODUCT DESCRIPTION

Asplit HSP is a halogen free potassium silicate mortar, which has been specially designed to be used by spraying (similar to sprayed concrete).

Asplit HSP is a compact system which includes a specially formulated hardener, which by mixing with water, chemically reacts to harden.

FIELDS OF APPLICATION

Asplit HSP is used as a corrosion protection in larger buildings and vessel areas, as a monolithic coating. The coating thickness should be between 10 – 20 mm thick. The coating is mainly designed for steel areas; such as steel chimney flues, Cowper and Cyclones. It is not recommended for the storage of liquids in steel tanks. The cylinders, vessels etc. must have sufficient space to accommodate the spraying pipes. The free working space should not be less than 1.50 m in diameter.

FEATURES

- Halogen free containing no fluorides;
- Extremely high acid resistance;
- Temperature Resistance to +900° C;
- Very good bonding strength to steel
- Nearly the same coefficient of expansion as steel

CHEMICAL RESISTANCE

Information on the chemical resistance properties is available upon request.

SUBSTRATE

Components to be coated shall be designed and manufactured in accordance with EN 14879-1. Before start of coating 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 $R_z \geq 70 \mu\text{m}$ 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 $\leq 40\%$.

CONCRETE

Appropriate action shall be taken to prepare the concrete surfaces; dry and free of dust and free of contaminants such as oil or grease. The concrete shall have minimum tensile strength of 1.5 N/mm². The residual moisture content must not exceed 4%.

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	$\leq 80\%$
Surface Temperature	$\geq +10^\circ\text{C}$ up to $+30^\circ\text{C}$
Application Temperature	$+20^\circ\text{C} \pm 5^\circ\text{C}$ 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.

Asplit HSP is spray applied with a rotary machine, incorporating a sandblasting rotor, which applies the coat by operating continuously like the revolver system (e.g. Alivia-246).

The diameter of the hose at the front should be between 25 mm and 32 mm. Generally the pressure is set at between 2 – 3 bar. It should be finely adjusted, so that it results in a faultless coating. Pressure being set too high will result in loss of material, when it rebounds.

WORK TOOLS

The following tools are essential for the application:

- Stirrer (max. 300 r/min.)
- Measuring cup & Mixing vessels
- Flat / wide brush
- Mortar trowel
- Rotary machine (Alivia-246)
- Miscellaneous (safety glasses, rubber gloves etc.)

MIXING RATIO

The spray coating of **Asplit HSP** occurs, when the **Asplit HSP** Powder is rotary mixed at the spray nozzle with water, similar to the guniting process.

Asplit HSP	Parts by Weight [kg]	Parts by Volume [Liter]
Water	18	2.00
Asplit HSP POWDER	100	8.89

CURING (20°C)

Load Capacity	Time
Over workable	ca. 24 h
Thermal loadable	ca. 48 h
Chemical load	ca. 14 Days

CLEANING

Clean all equipment with 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.

Asplit HSP

PACKING UNITS

The products are supplied in the following standard package sizes:

Product	Size	Article No.
Asplit HSP POWDER	25 kg	592 0170

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 HSP POWDER	-	24 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	10
Compressive Strength	EN ISO 604	N/mm ²	30
Coefficient of Thermal Expansion	-	1/K	12 x 10 ⁻⁶
Max. Operating Temperature Dry	-	°C	+900

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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