

## PRODUCT INFORMATION

### Asplit OC

#### PRODUCT DESCRIPTION

**Asplit OC** is a three-component, cold curing synthetic resin mortar, based on a combination of unsaturated polyester and vinyl ester resin, with carbon filler. The cured resin mortar is electrically conductive.

#### FIELDS OF APPLICATION

**Asplit OC** is suitable as bedding and jointing mortar for tiles, bricks and fittings, especially for chemical loads of strong acids and organic solvents at high temperatures.

Main applications are tiling and brick linings of components in the chemical industry, metal processing industry, in channels, in pits, in sumps, in storage and work rooms, in neutralization and pickling lines and in areas with required electrical conductivity.

#### FEATURES

- Very high mechanical load capacity
- High universal chemical resistance. Excellent chemical resistance, especially to oxidizing acids and acid mixtures and hydrofluoric acid as well as solvents
- High temperature resistance
- Cured mortar is electrically conductive

#### 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

Steel and concrete surfaces, plastic sheets and other sealing layers (except on VE and UP based layers) must be primed with a primer before application. The primer must be sanded (corundum d = 0.7 – 1.2 mm) in a fresh state after the final coat. Unevenness should be compensated in the ground.

#### 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/mm<sup>2</sup>. 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.

Steel and concrete surfaces, plastic sheets and other sealing layers (except on VE and UP based layers) must be primed with **Asplit VE 145 PRIMER** before application. Sealing layers made of rubber must be primed with **Asplit OC PRIMER** prior to mortar application.

**Asplit OC** 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.

Carbon bricks need to be primed with sprinkled/sanded **Asplit OC PRIMER** before mortar application.

If tiles have to be laid in alkaline mortar with open joints, make sure that the mortar is hardened, acidified and dried before applying **Asplit OC**. The joints have to be square with a depth of minimum 15 mm and a width of 5 - 8 mm. The edges of the tiles have to be free from mortar and the joints must be cleaned.

#### WORK TOOLS

The following tools are essential for the application:

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

## Asplit OC

### MIXING RATIO

#### Asplit OC PRIMER

Pour **Asplit OC SOLUTION 2**, **Asplit OC SOLUTION 3** and the **Asplit OC HARDENER** in a mixing vessel with the specified mixing ratios, and then mix thoroughly.

#### Asplit OC.

Asplit OC PRIMER (Primer for rubber)	Parts by Weight [kg]	Parts by Volume [Liter]
Asplit OC SOLUTION 2	100	2.00
Asplit OC SOLUTION 3	10	0.17
Asplit OC HARDENER	2.8	0.09

#### Asplit VE 145 PRIMER

Pour **Asplit VE 145 SOLUTION** in a mixing vessel and add **HARDENER No. 1 CLEAR** with the specified mixing ratio and mix thoroughly.

Asplit VE 145 PRIMER	Parts by Weight [kg]	Parts by Volume [Liter]
Asplit VE 145 SOLUTION	100	2.00
HARDENER No. 1 CLEAR	2	0.04

#### Asplit OC

Pour **Asplit OC SOLUTION** in a mixing vessel and add **Asplit OC HARDENER** with the specified mixing ratio and mix thoroughly. Afterwards add certain amount of **Asplit OC POWDER** with the specified mixing ratios, then mix. The stirring of the merged components should be at least 3 minutes and must result in a homogeneous mixture.

Asplit OC	Parts by Weight [kg]	Parts by Volume [Liter]
Asplit OC SOLUTION	100	2.00
Asplit OC HARDENER	5.6	0.18
Asplit OC POWDER	300	6.51

### CONSUMPTION

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

Material	Sizes [mm]	Coverage [kg/m <sup>2</sup> ]
Tiles	240 x 115 x 20	ca. 13
Tiles	240 x 115 x 40	ca. 17
Bricks	240 x 115 x 65	ca. 21
Bricks	240 x 115 x 80	ca. 24

### POT LIFE (20°C)

Product	Time [min]
Asplit OC	ca. 35 - 40
Asplit OC PRIMER	ca. 25
Asplit VE 145 PRIMER	ca. 40

The pot life of **Asplit OC** is adjusted by the addition of **Asplit OC INHIBITOR 1**:

Temperature	Quantity Asplit OC INHIBITOR 1
20°C	ca. 20 ml to 2 L solution
25°C	ca. 30 ml to 2 L solution
30°C	ca. 40 ml to 2 L solution
35°C	ca. 50 ml to 2 L solution

### CURING (20°C)

Load Capacity	Time
Accessible	ca. 12 h
Chemical load	ca. 8 Days

### CLEANING

Clean all equipment with **SOLVENT T-200** 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 OC

### PACKING UNITS

The products are supplied in the following standard package sizes:

Product	Size	Article No.
Asplit OC HARDENER	0.5 kg	592 0670
Asplit OC INHIBITOR 1	1 kg	592 0680
Asplit OC SOLUTION	20 kg	592 0650
Asplit OC SOLUTION 2	10 kg	592 0630
Asplit OC SOLUTION 3	1 kg	592 0640
Asplit OC POWDER	25 kg	592 0660
Asplit VE 145 SOLUTION	20 kg	592 0716
HARDENER No. 1 CLEAR	0.1 kg	592 0181
HARDENER No. 1 CLEAR	0.4 kg	592 0019
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 OC HARDENER	≤ +20°C	6 Months
Asplit OC INHIBITOR 1	≤ +20°C	12 Months
Asplit OC SOLUTION	≤ +20°C	6 Months
Asplit OC SOLUTION 2	≤ +20°C	6 Months
Asplit OC SOLUTION 3	≤ +20°C	6 Months
Asplit OC POWDER	-	12 Months
Asplit VE 145 SOLUTION	≤ +20°C	6 Months
HARDENER No. 1 CLEAR	≤ +20°C	12 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
Resistance to Ground	EN ISO 1081	Ω	≤ 10 <sup>6</sup>
Density (Mixture)	EN ISO 2811 (ASTM D1475)	g/cm <sup>3</sup>	1.8
Compressive Strength	EN ISO 604	N/mm <sup>2</sup>	70
Adhesion Strength	EN ISO 4624	N/mm <sup>2</sup>	> 3
Coefficient of Thermal Expansion	-	1/K	32 x 10 <sup>-6</sup>
Max. Operating Temperature Liquids	-	°C	+100

**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.

TIP TOP Oberflächenschutz Elbe GmbH | Heuweg 4 | 06886 Wittenberg / Germany  
 Phone: +49 (0) 3491 635 50 | E-Mail: [info@tiptop-elbe.de](mailto:info@tiptop-elbe.de) | Internet: [www.tiptop-elbe.com](http://www.tiptop-elbe.com)

TIP TOP Oberflächenschutz Elbe GmbH	Asplit OC	Revision 1.09 -10.06.2021
Replaces all previous editions	PRODUCT INFORMATION	Page: 3/3