

## PRODUCT INFORMATION

### Asplit VEL

#### PRODUCT DESCRIPTION

**Asplit VEL** is an approx. 3 mm thick; glass mat reinforced lining system based on a Novolac vinyl ester resin. The coating system consists of a trowel applied primer, a laminate layer and optionally a top coat. The top coat is used optionally, if an electrical conductive or a gray surface is required.

#### FIELDS OF APPLICATION

**Asplit VEL** is designed as an internal lining for sumps and collecting basins made of reinforced concrete, and it can also be used indoors and outdoors in liquid storage areas. Furthermore **Asplit VEL** is suitable as a flooring material where the traffic consists of vehicles with inflated or solid tyres, or with Polyurethane (Vulkollan) or polyamide wheels, mainly in galvanizing plants, pickling plants and HBV (manufacture of water polluting substances) plants where the floors are in contact with oxidizing media. The optional feature of the coating system which ensures the dissipation of static charges enables the storage of flammable liquids.

#### FEATURES

- Temperature resistant up to +100°C on steel
- Excellent chemical resistance to acids, alkalis, solvents and especially oxidizing agents
- Crack-bridging properties. Can bridge cracks of  $\leq 0.25$  mm in concrete according EN 14879-3
- Electrically Conductive
- Drivable
- Excellent adhesion to concrete surfaces
- Very good mechanical properties

#### 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/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 coating work and be tested and recorded according EN 14879.

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

**Asplit VEL PRIMER** is applied onto the prepared substrate by using a roller, mortar trowel or grout spreader. As the trowelled primer hardens, **Asplit VE** laminate solution is applied and the first layer of 450 g/m<sup>2</sup> glass mat is laid into the solution. It is then saturated with **Asplit VE** laminate solution and rolled on free from bubbles by using a roller (segmented roller). The glass mats need to be placed with approximately 5 cm overlapping onto each other.

Before the previous layer hardens, the second layer of 450 g/m<sup>2</sup> glass mat is placed, saturated with **Asplit VE** laminate solution and rolled on free from bubbles. The overlapping distance between the subsequent layers need to be minimum 50 cm. Finally, a 30 g/m<sup>2</sup> surface veil is applied onto the second glass mat, fresh in fresh and free from bubbles.

After hardening of the **Asplit VEL** two coats of gray VE-topcoat can be rolled on the top optionally.

Due to the nature of hand craft application, small air inclusions can not be avoided 100%. This is already considered and it's compensated by a higher lining thickness of **Asplit VEL**.

#### CONDUCTIVITY

To achieve a conductive top coat, self bonding copper tapes are bonded onto the hardened **Asplit VEL** and then the first coat of conductive topcoat is applied. Following the hardening of the 1<sup>st</sup> Topcoat (approx. 3 - 5 hours), 2<sup>nd</sup> coat of the conductive topcoat can be applied.

#### SLIP RESISTANCE

To improve the slip resistance of **Asplit VEL**, the fresh laminate coating can be sanded with silicon carbides (0.5mm; Consumption: 1.5 kg/m<sup>2</sup>).

## Asplit VEL

### WORK TOOLS

The following tools are essential for the application:

- Stirrer (max. 300 r/min.)
- Measuring cup & Mixing vessels
- Flat / wide brush / roller
- Laminate roller
- Scissors
- Miscellaneous (safety glasses, rubber gloves etc.)

### MIXING RATIO

#### MIXING PRIMER

Pour **Asplit VE SOLUTION** in a mixing vessel and add **HARDENER No. 1 CLEAR** at the specified mixing ratio. The stirring of the merged components should be at least 3 minutes and must result in a homogeneous mixture.

Then add **Asplit VEL POWDER** in the recommended mixing ratio to this mixture and stirrer again. The stirring of the merged components should be at least 3 minutes and must result in a homogeneous mixture. Then pour the mixture into a clean pail and mix again briefly.

#### MIXING Asplit VEL LAMINATE SOLUTION

Pour **Asplit VE SOLUTION** in a mixing vessel and add **HARDENER No. 1 CLEAR** at the specified mixing ratio. The stirring of the merged components should be at least 3 minutes and must result in a homogeneous mixture. Then add **Asplit VEL POWDER** in the recommended mixing ratio to this mixture and stirrer again. The stirring of the merged components should be at least 3 minutes and must result in a homogeneous mixture. Then pour the mixture into a clean pail and mix again briefly.

PRIMER	Parts by Weight [kg]	Parts by Volume [Liter]
Asplit VE SOLUTION	100	2.00
HARDENER No. 1 CLEAR	2	0.04
Asplit VEL POWDER	80	2.24

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

TOPCOAT	Parts by Weight [kg]	Parts by Volume [Liter]
Asplit VE SOLUTION CONDUCTIVE	100	2.00
HARDENER No. 1 CLEAR	1	0.02
Asplit VE SOLUTION GRAY	100	2.00
HARDENER No. 1 CLEAR	1	0.02

### CONSUMPTION

Layer	Product	Coverage [g/m <sup>2</sup> ]
Primer	Primer	ca. 700 - 1500
Laminate Layer	<b>Asplit VEL</b>	ca. 2700
	2 x Fibreglass mats 450 g/m <sup>2</sup> 1 x Surface veil 30 g/m <sup>2</sup>	ca. 1000 ca. 33
1 <sup>st</sup> Topcoat	<b>Asplit VEL Topcoat</b>	ca. 300
2 <sup>nd</sup> Topcoat	<b>Asplit VEL Topcoat</b>	ca. 300

### POT LIFE (20°C)

Product	Time [min]
Primer	ca. 40
Laminate layer	ca. 60
Topcoat	ca. 60

### CURING (20°C)

Load Capacity	Time
Accessible	ca. 4 h
Chemical load	ca. 3 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.

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### PACKING UNITS

The products are supplied in the following standard package sizes:

Product	Size	Article No.
Asplit VE SOLUTION	5 kg	592 0710
Asplit VE SOLUTION	20 kg	592 0700
Asplit VE SOLUTION	1000 kg	592 0705
Asplit VE SOLUTION CONDUCTIVE	5 kg	592 0740
Asplit VE SOLUTION CONDUCTIVE	20 kg	592 0730
Asplit VE SOLUTION GRAY	5 kg	592 0714
Asplit VE SOLUTION GRAY	20 kg	592 0713
Asplit VEL POWDER	25 kg	592 0720
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 VE SOLUTION	≤ +20°C	6 Months
Asplit VE SOLUTION CONDUCTIVE	≤ +20°C	3 Months
Asplit VE SOLUTION GRAY	≤ +20°C	3 Months
Asplit VEL POWDER	-	24 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	DIN EN 14879	Ω	< 10 <sup>8</sup>
Density (Mixture)	EN ISO 2811 (ASTM D1475)	g/cm <sup>3</sup>	1.4
Compressive Strength	EN ISO 604	N/mm <sup>2</sup>	60
Hardness Shore D	-	-	> 60
Max. Operating Temperature Dry	-	°C	+100

\* When using the self bonding copper tapes with **Asplit VE SOLUTION CONDUCTIVE**

**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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TIP TOP Oberflächenschutz Elbe GmbH	Asplit VEL	Revision 1.10 -10.06.2021
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