

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 if an electrical conductivity or a grey surface is required.

FIELDS OF APPLICATION

Asplit VEL is suited for sealing reinforced concrete pits and chambers, indoors or outdoors, for the storage of liquids.

Asplit VEL is also suitable as a coating system to be driven on directly by vehicles with pneumatic tyres or with tyres of solid rubber, Vulkollan or polyamide, e.g. in electroplating works, pickling plants, and in plants where oxidising materials are manufactured, treated or used.

FEATURES

- High temperature resistance up to +100°C on steel
- Excellent chemical resistance to acids, alkalis, solvents and especially oxidizing materials
- Crack bridging properties. Can compensate cracks ≤ 0.25 mm according EN 14879-3
- Electrically conductive
- Drivable
- Very good adhesion on concrete surfaces
- Very good mechanical properties

CHEMICAL DESCRIPTION

Information on the chemical request is available on request.

SUBSTRATE

Components shall be designed and manufactured in accordance with EN 14879-1. Before **Asplit VEL** is applied, the suitability of the surface preparation measures according EN 14879-1 must be checked and recorded.

SURFACE PRE-TREATMENT

C-Steel

All contaminants, including non-visible detectable contaminants, must be removed in accordance with DIN Fachbericht # 28 and EN ISO 8502.

Ferretic steel surfaces shall be abrasive blasted to "Near White Metal". A standard preparation degree of SA 2½ according EN ISO 12944-4 must be achieved. To prevent flash rust, the primer must be applied immediately after the blasting and cleaning of the substrate.

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 peel strength of 1.5 MPa. The residual moisture content must not exceed 4%.

A mechanical treatment by blasting with solid abrasives, high pressure water blasting or shot blasting is recommended. After milling, flame blasting or prying a blasting is also required.

PROCESSING

Environmental Conditions

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

Equipment

The following list of equipment is essential for the application of **Asplit VEL**:

- Stirrer (max. 300 r/min.)
- Measuring cup
- Mixing vessels
- Brushes, wide brushes
- Rollers
- Laminate roller, Trowel
- Scissor
- PSA (safety glasses, rubber gloves etc.)

Mixing trowel applied Primer

Fill **Asplit VE Solution** in a mixing vessel and add **Asplit Hardener No. 1** at the specified mixing ratio. The stirring of the merged components should be at least 3 minutes. Then **Asplit VEL Powder** is added to the mixture in the specified mixing ratio and mixed 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.

Mixing VEL Laminate Solution

Fill **Asplit VE Solution** in a mixing vessel and add **Asplit Hardener No. 1** at the specified mixing ratio. The stirring of the merged components should be at least 3 minutes.

Mixing Ratio

Primer	Kg	Parts per weight	Parts per volume
Asplit VE Solution	1.000 kg	100	1.00 L
Asplit Hardener No. 1	0.015 kg	2	0.02 L
Asplit VEL Powder	0.800 kg	80	1.62 L
	1.815 kg = 1 Liter		
Asplit VEL Laminate	Kg	Parts per weight	Parts per volume
Asplit VE Solution	1.074 kg	100	1.00 L
Asplit Hardener No. 1	0.016 kg	2	0.02 L
	1.090 kg = 1 Liter		
Top Coat (optional)	Kg	Parts per weight	Parts per volume
Asplit VE Solution Conductive	1.250 kg	100	1.00 L
Asplit Hardener No. 1	0.012 kg	1	0.01 L
	1.262 kg = 1 Liter		
Top Coat (optional)	Kg	Parts per weight	Parts per volume
Asplit VE Solution Grey	1.120 kg	100	1.00 L
Asplit Hardener No. 1	0.012 kg	1	0.01 L
	1.132 kg = 1 Liter		

Application

Asplit VEL primer is applied on the substrate by using a roller or a trowel.

Asplit VEL laminating solution is applied on the cured surface by using a roller and then the first 450 g/m² glass mat is pressed fresh in fresh – with an overlapping width of approx. 5 cm – and rolled on bubble free by using a roller, saturated with **Asplit VEL** laminating solution. The remaining air must be removed by using a laminate roller. The second 450 g/m² glass mat is pressed - with an overlapping width of approx. 50 cm – on the uncured layer, soaked with **Asplit VEL** laminate solution again and rolled on bubble free by using a roller, saturated with **Asplit VEL** laminating solution. The remaining air must be removed again by using a laminate roller. Finally, a 30 g/m² surface veil is applied on the second glass mat fresh in fresh and bubble free.

After curing of **Asplit VEL** an optional grey top coat can be applied twice by using a roller.

In order to achieve a conductive top coat, conductive copper tapes can be glued on the **Asplit VEL** and covered with **Asplit VE Solution Conductive**. After curing of the first top coat (approx. 3 – 5 hours) the second coat with **Asplit VE Solution Conductive** is applied by using a roller.

To improve the slip resistance of **Asplit VEL**, the fresh laminate coating can be sanded with silicon carbide. (0.5mm; Consumption: 1.5 kg/m²)

Consumption

Layer	Consumption
Primer	approx. 700 – 1500 g/m ²
Asplit VEL Laminate	approx. 2500 g/m ²
Top Coat	approx. 300 g/m ² per coat (2x)

Pot Life

Layer	Pot Life (20°C)
Primer	approx. 40 min.
Asplit VEL Laminate	approx. 60 min.
Top Coat	approx. 60 min.

Curing

Load Capacity	Time
Accessible	approx. 4 hours (at 20°C)
Chemical Load	approx. 3 days (at 20°C)

Cleaning

Clean all equipment immediately after use with **Asplit Universal Cleaner**. The cleaning is carried out as long as the material is not cured.

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	Product-No.
Asplit VE Solution	20 kg	592 0700
Asplit VE Solution	5 kg	592 0710
Asplit VE Solution Conductive	20 kg	592 0730
Asplit VE Solution Conductive	5 kg	592 0740
Asplit VE Solution Grey	20 kg	592 0713
Asplit VE Solution Grey	5 kg	592 0714
Asplit VEL Powder	25 kg	592 0720
Asplit Hardener No. 1	0.4 kg	592 0450
Asplit Hardener No. 1	0.1 kg	592 0455
Asplit Universal Cleaner	8.4 kg	592 0900

STORAGE

The materials must be stored at a cool and dry place, protected 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 month
Asplit VE Solution Conductive	≤ +20°C	3 month
Asplit VE Solution Grey	≤ +20°C	3 month
Asplit VEL Powder	-	24 month
Asplit Hardener No. 1	≤ +20°C	12 month

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.



// ONE BRAND // ONE SOURCE // ONE SYSTEM



Technical Data	Standard	Unit	Value
Resistance to Ground	DIN EN 14879	Ω	$< 1 \times 10^6$
Density	DIN EN ISO 2811-1	g/cm ³	1.40
Density <i>Asplit VE Solution</i>	DIN EN ISO 2811-1	g/cm ³	1.09
Density <i>Asplit VE Solution Conductive</i>	DIN EN ISO 2811-1	g/cm ³	1.25
Density <i>Asplit VE Solution Grey</i>	DIN EN ISO 2811-1	g/cm ³	1.12
Density <i>Asplit Hardener No. 1</i>	DIN EN ISO 2811-1	g/cm ³	1.06
Density <i>Asplit VEL Powder</i>	DIN EN ISO 2811-1	g/cm ³	0.54
Compressive Strength	DIN EN ISO 604	N/mm ²	60
Hardness Shore D	-	-	> 60
Max. Operating Temperature Dry	-	°C	100
Tensile Strength	DIN EN ISO 527	N/mm ²	approx. 63

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