



What components are ST100 made up of?

The material consists of an organic epoxy binder with a filler of black mineral sands (mainly titanium carbide).

How do I remove STEENVAS epoxy adhesive from a surface?

You can use a diamond tip angle grinder or if on the floor a small chipper. Alternatively you can use a blow torch (taking into consideration that the surfaces you've bonded together will allow such temperatures).

How do I prepare surfaces for the application of STEENVAS ST100 epoxy adhesive?

Make sure area is free from dirt and grime. Use a sanding disk to roughen up smooth areas to ensure good bonding.

What Temperatures can STEENVAS epoxy adhesives withstand?

STEENVAS Epoxy Adhesives operate without any issues on environments ranging between -50 to 150 degrees celsius.

What surfaces can STEENVAS ST100 Epoxy Adhesives bond to?

STEENVAS ST100 Epoxy Adhesives can bond to the following materials:

- Steel
- plastic
- nutec
- glass
- concrete
- aluminium
- wood

Please note that surface preparation (before application) is important to ensure the longevity of your epoxy bonds.



How long does Steenvas Epoxy Adhesives take to cure?

The adhesives can be moulded and manipulated for up to half an hour after application. Thereafter it starts to set and will be fully cured after approx 6-8 hours.

Can Steenvas Epoxy Adhesives be used to join PVC pipes?

Yes, Steenvas forms a great waterproof bond. Just make sure you roughen the surfaces with sandpaper where it will be applied on the join for the best possible bond. You can also bond PVC stop-ends on to pipes.

Does Steenvas ST100 conduct electricity?

Yes, but quite weakly.

Steenvas ST100 is not a great conductor of electricity, but does weakly conduct.

How do you remove Steenvas Epoxy Adhesive (ST100)

Here are some ways to remove our epoxy adhesive:

- You can sand the product with sandpaper
- You can file it with a metal file
- You can use a blow torch to burn it away
- You can bore it out with a metal bore tip

What kind of pressure can Steenvas ST100 Epoxy Adhesive handle?

ST100 Epoxy Adhesive has been tested to hold 80 bar pressure. Ultimately, the integrity of the bond and how much pressure it will handle, will depend on how well the application has been done.



Technical Data Sheet

The material consists of an organic epoxy binder with a filler of black mineral sands (mainly Titanium Carbide).

When applying the material, the especially smooth surface of the mineral sand particles in the shape of a ball or a club leads to the formation of a glassy surface. Within the material, the particles come into close contact, forming a dense hexagonal spherical package. By choosing a proper particle size distribution the usual cavitation can be avoided such that only a minimum of binder is required.

As a result of the dense packaging the material becomes highly resistant to pressure and because of the high loading factor it also becomes highly wear-resistant.

The material is extremely resistant to corrosion and to other aggressive agents, especially to acids, alkalis and escrementments, even when they are aqueous.

The surface friction can be set by choosing a proper mixture.

The material absorbs energy very fast and releases it slowly and homogeneously.

The material is not flammable. Environmental and health hazards do not occur during application or use.

a) Density	2.6Lt	
b) Wear	Up to 2.0ccm/50m ²	DIN 52108
c) Heat Conductivity	At ± 30,1°C – 0.638 W/M.K At ± 49,8°C – 0.642 W/M.K At ± 69,8°C – 0.653 W/M.K	DIN 52612
d) Bending Strength	34 N/mm ²	DIN 1164
e) Compressor Strength	98.9 N/mm ²	DIN 1164
f) Water Permeability	Zero 1mm Layer Titan on concrete depth of penetration after 48 hours and 10 Bar – Nil	DIN 1048
h) Steam Diffusion Resistance	40.900	DIN 53122
i) Acid Resistance	Resistant to large range of acids	DIN 4051
j) Alkalis, Aggressive Substances & Escrementments	Resistant	DIN 51092



STEENVAS Epoxy Systems
Industrial Flooring & Adhesives

FURTHER DATA

1. Specific Weight ca. 2.6Lt
2. Antistatic and Antimagnetic
3. UV-Resistant
4. X-Ray Resistant
5. Non Thermoplastic
6. Legitimacy to food
7. Tropic- proof, secure to termites
8. Non- flammable, Non-explosive
9. Decontaminable
10. Fast heat absorption, slow homogeneous heat emission, therefore well suitable for under floor heating and cooling rooms.
11. Discourage bacterial growth.

RANGE OF APPLICATION

According to its extraordinary properties the material has a wide range of application.

The following listing informs you about the possibilities of using the material industrially.

THE MATERIAL IS USED AS

- Coating
- Aggregate
- Undercoat, joint sealing compound, special adhesive
- Protection against corrosion
- Cold Casting

THE MATERIAL IS USED AS COATING

- Nuclear Reactor Engineering
- Pipeline Engineering
- Air Strips
- Sewage Works
- Canal Engineering
- Industrial Floors
- Road Construction
- Building Construction and Civil Engineering
- Covering areas on trucks, busses against rust, wear and tear and is non-slip
- Coating steel and concrete against erosion and corrosion

AGGREGATE FOR

- Cement Plants
- Ready Mix Plants
- Screeds Plants



STEENVAS Epoxy Systems
Industrial Flooring & Adhesives

UNDERCOAT, JOINT SEALING COMPOUND, SPECIAL ADHESIVE FOR

- Binding Asbestos, Aluminium, PVC, Iron, Cast-iron, Cement, Plastic, Glass, Porcelain, Paper, Leather, Clay, Stainless Steel, Lead, Stone, Marble, Wood and Copper
- Prefabricated Houses Manufacturing
- Precast Concrete Manufacturing
- Timber Manufacturing
- Machine Building
- Repairing of radiators, Roofs, Petrol and Diesel Tanks, Irrigation Equipment
- Engine Blocks and Batteries

PROTECTION AGAINST CORROSION AND ERROSION FOR

- Ship Building
- Steel Construction
- Concrete Construction

COLD CASTING FOR

- Machine Building
- Mould Building
- Enclosure Building
- Tools Building
- Can be machined

The material can be sprayed e.g. With special spraying equipment or trowled.

IT IS HIGHLY APPLICABLE FOR

- Floors of chemical laboratories
- Dairies
- Butcheries and Abattoirs
- Industrial buildings
- Bowling Alleys
- Open air dance halls
- Acid Reservoirs
- Road Surfaces
- Balconies
- Platforms
- Terraces and Steps (Non-Slippery)
- Shower and Bathroom Floors
- Cooling Rooms and Cold Storage Floors

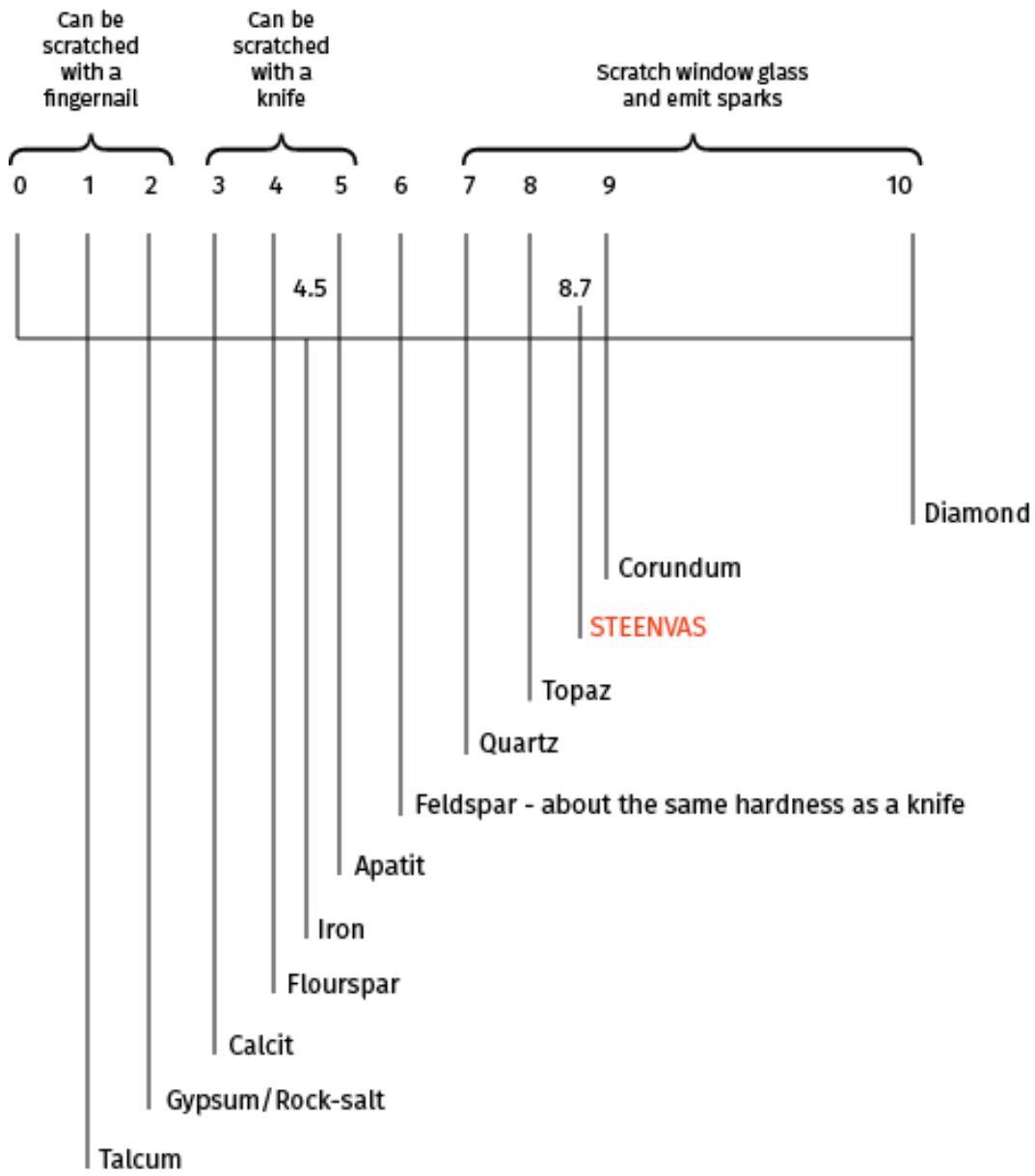
The material can very well be used by consumers of Warehouses and Supermarkets, as well as using it for repairing asbestos, Aluminium, PVC, Irrigation pipes, High pressure valves, Tabs, radiators, Reservoirs, Water furrows, Cellars, Asbestos Tanks and Pipes, Roofs, Batteries, Cement Pipes and Petrol and Diesel Tanks.

The product is tested and accepted by Everite, SA Navy and is been used in South Africa and Germany with great success.



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SCALE OF HARDNESS BY MOHS





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TESTS DONE ON THE PRODUCT STEENVAS

(At The State Mineral Test Institute, Darmstadt West Germany)

77% Mineral Contents
23% Agglutinant

WATER PERMABILITY ACCORDING TO DIN 1048

The test was done on samples of concrete 20 x 20cm² surface x 12cm thick.
The samples were covered with 1.2mm of our product.

They have placed the samples in three different degrees of pressure according to Din 1048, and water pressure was placed on surface of coating.

In the first pressure grade was 1 bar overhead pressure (1kp/cm²) for 48 hours, and the second and third pressure degree were for 24 hours, one after another, a pressure of 3 bar (3kp/cm) and 7 bar pressure of 7kp/cm²

After the test the samples were cut in half to see what the water permeability was.

RESULT

There was no water penetrating through the covered samples, and the average covering thickness was 1.2mm.

Singular value 1.0, 1.0, 1.5

DENSITY AGAINST FUEL OIL

Again they used three concrete slabs of 20 x 20cm surface and 12cm thick, covered 1.2mm with STEENVAS.

In all three pressure grades, according to DIN 1048, they placed on the surface of coating, the fuel oil under pressure.

(Fuel Oil test mixed by Co. J Halterman , Hamburg)

In the first degree of pressure, was a 48 hour oil pressure of 1 bar (kp/cm²) and the second and third pressure degrees was a oil pressure of 3 bar (3kp/cm²) and seven (7) bar 7kp/cm² for 24 hours.

The samples were cut in half, and found no oil permeability.

RESULT

No oil has penetrated through covered samples into concrete, so permeability of oil is zero.



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DURABILITY AGAINST AGGRESSIVE SUBSTANCES

It is mainly about the effect of acids, lye and aggressive substances (like ammonia and Urine solutions).

6 Plates of clean STEENVAS products 20 x 10 x 1.8cm were used for the test.

RESULT

The effect of the acids (diluted sulfuric acid, nitric acid and hydrochloric acid) and lye was that the material was by no means affected, except a slight colour change.

With the ammonia and diluted urine solutions, there was no effect and not the slightest change at all.

WATER VAPOUR RESISTANCE FACTOR

For the examination they used four samples 95mm x 2.4mm

The test was done according to DIN 16730 (Abs 5.8 edition May 1976. Request in transit according to DIN 53122 part 1 edition November 1974) Climate in evaporations room 23°C and humidity 85%. (Climate D according to DIN 53122)

RESULT

a)	Thickness in mm:	Average 2.42mm
	Singular value:	2.11mm, 2.54mm, 2.60mm
b)	Vapour:	Resistance U calculate
		$U = \frac{39182}{M \cdot S}$

This means M = Vapour resistance amount according to DIN 53122 in g/m² d

S = Thickness of Samples in mm

The so calculated average of the vapour resistance factor U is "40/00". The single value is 38600-42200.



TEST FOR STIPULATION OF FLEXIBILITY, PRESSURE FIRMNESS, AS WELL AS WEAR

Investigation was done with samples of 60cm x 20cm x 5cm

TEST NR.	FLEXIBILITY	PRESSURE FRMNESS	WEAR AFTER 16 x 22 disc rotation	
			g / 50cm ²	cm ² / 50cm ²
20/1			4,5	1,9
20/2			6,8	2,9
20/3			5,4	2,3
20/4	33,3	99,6/100,0	6	
20/5	34,3	99,6/100,0		
20/6	35,7	97,2/ 98,4		
20/7	35,1	100,8/ 99,2		
20/8	36,2	97,2/ 96,4		
20/9	32,9	100,0 / 98,0		
AVERAGE	34,4	98,8	5,6	2.4

TEST FOR STIPULATION OF HEAT CONDUCTION ABILITY

Average sample thickness in singular value (mm): 7.91, 10.57

AVG TEMPERATURE	TEMPERATURE DIFFERENCE IN SAMPLES	HEAT CONDUCTIVITY ABILITY W/M-K
30.1	1.912 – 2.072	0,638
49.6	1.887 – 2.026	0,642
69.8	1.854 – 1.988	0,653

REMARK

The report value for the heat conduction ability in W/M-K