

Viscacid[®] CONDUCTIVE LAYER W



Article No. 1476

Water emulsifiable, environment-justifying, filled, electrically-conductive resin/hardener system for the production of conductive layers.

Property profile:

Viscacid Conductive Layer W is an anthracite, water emulsifiable, 2-component, electrically-conductive epoxy resin emulsion.

Range of use:

Viscacid Conductive Layer W serves as a shunt conductive layer in electrically-conductive coating systems on an epoxy resin base

Characteristic data of the product:

	Comp. A	Comp. B	Mixture
Appearance:	coloured	colourless, transparent	coloured
Density (20°C):	1.32 g/cm ³	1.12 g/cm ³	1.17 g/cm ³
Viscosity (25° C):	4500 mPas	205 mPas	4300 mPas
Flash point:	68°C	66°C	--
Odour:	slightly amine	neutral	slightly amine
Refraction index:	--	1.532	--

Mixing ratio:

Parts by weight: 82 : 18
 Parts by volume: 79.1 : 20.9
dust-dry: 90 minutes ambient temperature
foot traffic: 3 hours
overcoatable: 24 hours
fully hardened: 7 days

Adhesive pull strength

on concrete: 4.5 N/mm² (system)
Leakage resistance: < 20 K Ohm

Substrates:

Minimum compressive strength of the substrate must be 25 N/mm², minimum adhesional/tensile strength 1.5 N/mm². The surfaces to be treated must be clean, dry and absorbent.

Working Instructions:

The two components are packaged in special containers in the proper mixing ratio. The mixture should be produced in compliance with the DBV Code of Practice "The use of cold-cured resins in concrete construction - part 3.2 - Using cold-cured resins on concrete".

The hardener component (B) should be completely added to the resin component (A). For smaller amounts (up to 10 litres), use a mixer on a counter-current principle. A drill with a max. speed of 400 rpm can be used as a drive.

Observe the minimum mixing time of 2 minutes. Fill the mixture into a separate container afterward and mix again. It is then ready to use. Insufficiently mixed mixtures cause soft, incompletely cured spots.

Apply Viscacid Conductive Layer W in an even, closed layer using an epoxy roller. Defective spots interrupt the conductivity.

Working Guidelines:

The ambient and substrate temperature should not fall below 10°C. Hardening is accelerated at higher temperatures, delayed at lower temperatures.

The formation of condensation on the surface to be coated, which often occurs if the temperature falls below the condensation point, considerably reduces adhesional strength. On multiple-layered construction, subsequent layers should never be applied if the temperature of the substrate is less than or equal to the condensation point temperature. The condensation point temperature should be at least 3°C below the temperature of the substrate to be coated. (To determine the condensation point temperature, relative humidity and air temperature are measured with e.g. a thermohygrometer and determined with the aid of a condensation point table – see next page.) If the given temperature relationship is unfavourable, the use of heating equipment will be required.

Condensation point table:

Air temp	Condensation point temperature ¹⁾ in °C with a relative humidity of:															
°C	30%	35%	40%	45%	50%	55%	60%	65%	70%	75%	80%	85%	90%	95%		
30	10.5	12.9	14.9	16.8	18.4	20.0	21.4	22.7	23.9	25.1	26.2	27.2	28.2	29.1		
29	9.7	12.0	14.0	15.9	17.5	19.0	20.4	21.7	23.0	24.1	25.2	26.2	27.2	28.1		
28	8.8	11.1	13.1	15.0	16.6	18.1	19.5	20.8	22.0	23.2	24.2	25.2	26.2	27.1		
27	8.0	10.2	12.2	14.1	15.7	17.2	18.6	19.9	21.1	22.2	23.3	24.3	25.2	26.1		
26	7.1	9.4	11.4	13.2	14.8	16.3	17.6	18.9	20.1	21.2	22.3	23.3	24.2	25.1		
25	6.2	8.5	10.5	12.2	13.9	15.3	16.7	18.0	19.1	20.3	21.3	22.3	23.2	24.1		
24	5.4	7.6	9.6	11.3	12.9	14.4	15.8	17.0	18.2	19.3	20.3	21.3	22.3	23.1		
23	4.5	6.7	8.7	10.4	12.0	13.5	14.8	16.1	17.2	18.3	19.4	20.3	21.3	22.2		
22	3.6	5.9	7.8	9.5	11.1	12.5	13.9	15.1	16.3	17.4	18.4	19.4	20.3	21.3		
21	2.8	5.0	6.9	8.6	10.2	11.6	12.9	14.2	15.3	16.4	17.4	18.4	19.3	20.2		
20	1.9	4.1	6.0	7.7	9.3	10.7	12.0	13.2	14.4	15.4	16.4	17.4	18.3	19.2		
19	1.0	3.2	5.1	6.8	8.3	9.8	11.1	12.3	13.4	14.5	15.5	16.4	17.3	18.2		
18	0.2	2.3	4.2	5.9	7.4	8.8	10.1	11.3	12.5	13.5	14.5	15.4	16.3	17.2		
17	-0.6	1.4	3.3	5.0	6.5	7.9	9.2	10.4	11.5	12.5	13.5	14.5	15.3	16.2		
16	-1.4	0.5	2.4	4.1	5.6	7.0	8.2	9.4	10.5	11.6	12.6	13.5	14.4	15.2		
15	-2.2	-0.3	1.5	3.2	4.7	6.1	7.3	8.5	9.6	10.6	11.6	12.5	13.4	14.2		
14	-2.9	-1.0	0.6	2.3	3.7	5.1	6.3	7.5	8.6	9.6	10.6	11.5	12.4	13.2		
13	-3.7	-1.9	-0.1	1.3	2.8	4.2	5.5	6.6	7.7	8.7	9.6	10.5	11.4	12.2		
12	-4.5	-2.6	-1.0	0.4	1.9	3.2	4.5	5.7	6.7	7.7	8.7	9.6	10.4	11.2		
11	-5.2	-3.4	-1.8	-0.4	1.0	2.3	3.5	4.7	5.8	6.7	7.7	8.6	9.4	10.2		
10	-6.0	-4.2	-2.6	-1.2	0.1	1.4	2.6	3.7	4.8	5.8	6.7	7.6	8.4	9.2		

¹⁾ Approximations may be interpolated linearly.

Technical Information Sheet

Tools and cleaning:

Drill with mixing paddle, epoxy roller, floor brush.
Clean tools and any splashed material immediately while fresh with water.

Packaging, application rate and storing:

Packaging: 5 and 10 kg tin containers

Application rate: The specified application rate of 0.30 kg/m² must be exactly observed. Avoid the formation of pools.

Shelf-life: 9 months in original, unopened and unmixed containers, stored frost-free.

Safety, ecology, disposal:

Further information concerning safety during transport, storage and handling as well as for disposal is found in the latest Safety Data Sheet.

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