ALCHEMY Spetec

TECHNICAL DATASHEET

STABILIZESOIL

AG100

AG100 is a three-component, water-swelling acrylate hydrogel.

Description

AG100 is a three-component, water-swelling hydrogel based on acrylate that hardens to an elastic product.

AG100 is especially noted for its low blending viscosity that is almost equivalent to the viscosity of water. AG100 can be applied in the case of grout curtains and ground stabilization.

Differing pot-lives can be defined (see pot-life tables below), adapted to the application and environmental temperature, by varying the A2- (17.64oz or 35.27oz) and the B-amount of salt (3.53 up to 35.27oz based on 44.09lbs A1 component).

Processing

The A2-container (17.64oz or 35.27oz) is emptied completely into the A1 container and mixed for approx. 3 minutes.

The B-component is filled into a container equivalent to the A1 component and filled with 18 litres tap water. Then it is mixed again for 3 minutes.

The A and B components prepared in this way should be processed at mixing ratio 1 : 1 (parts by volume) by means of a 2-component injection pump.

Indicated injection pumps: BOOSTER 10 A MINIBOOSTER 5U.

Different pot-lives can be defined depending on the amounts of A2 and B salt (and the temperature).

Pot-life depending on A2- and B-amount (at 50°F and 68°F):

Temperature = 50°F

B [oz]	A2 = 17.64oz Pot-life [min:s]	A2 = 35.27oz Pot-life [min:s]
3.53	6:44	2:35
7.05	2:41	1:13
14.1	1:07	0:36
21.16	0:53	0:31
28.22	0:42	0:23
35.27	0:38	0:20

Temperature = 68°F

B [oz]	A2 = 17.64oz Pot-life [min:s]	A2 = 35.27oz Pot-life [min:s]
3.53	2:49	1:02
7.05	1:12	0:31
14.1	0:39	0:22
21.16	0:26	0:13
28.22	0:20	0:11
35.27	0:16	0:09

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A TANK	**Grout Tank** Resin: 5 Gallons Water: 4.75 Gallons TE: 1 qt (based on set times required and temperature of resin and water)
B TANK	**Water Tank** Water: 9.5 Gallons SP: 2 pounds (based on set times required and temperature of resin and water) Reinforcing Agent (RA): maybe added up to 50% (4.25 Gallons water + 4.25 Gallons RA) to strengthen material and act as a shrinkage compensation in dry conditions.

Technical Data

Substance data of components:

Component	Consistency Colour Odour	Specific Density (68°F)	Dynamic Viscosity (68°F)
Comp. A1	liquid purple characteristic	approx. 71.79lbs/ft3 DIN EN ISO 3675	approx. 20cps ASTM D4878-98
Comp. A2	liquid colourless amine-like	approx. 69.92lbs/ft3 DIN EN ISO 3675	approx. 280cps ASTM D4878-98
Comp. B	solid white odourless	approx. 161.69lbs/ft3	Bulk density (68°F)approx. 71.79lbs/ft3

Mixture of A- and B-component:

Processing temperature*	41 - 104°F	substrate temperature
Viscosity of mixture (68°F)	approx. 3-4cps	ASTM D4878-98

Reaction data at 68°F:

Pot-life **	9s - 7min	DIN EN 14022
Final curing **	2 - 20min	

Properties after curing:

Consistency	soft-elastic	
Colour	purple	
Water absorption	approx. 100-150%	DIN EN ISO 62

* The declared range of temperature complies with our recommendations. Generally, the product reacts even at very low temperatures (from experience down to approx. 5°F) or distinct higher values than +104°F. Admittedly, problems might occur, which are not directly related to the properties of the product. At sharp frost the air line of the pump might freeze or even present ice inside the structural element to be sealed can cause difficulties. At temperatures above-average too short reaction times can arise, which prevent an entire and successful filling of the injection area. Beside that it might happen that the activated A-component at very high temperatures starts curing even without addition of the B-component, which results in a blockage of the injection pump.

** The indicated times are reached through different quantities of A2 and B component.

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Packaging	A1-component A2-component B-component	5 gallon 17.64oz - 2.2lbs plastic bottle 2lbs plastic can
	Bigger packaging on request.	
Storage	Shelf life at least 12 month in original packaging when stored in dry conditions between 59-77°F, protected from heat, frost and direct sunlight. After the expiration the use of the product is generally not recommended, unless an approval has been provided by Resiplast. This approval can only be obtained by the quality assurance department of Resiplast releasing the material after verification of main properties being within specification.	
Disposal	Small quantities of cured product residues can be disposed of as normal domestic waste. Dispose of not cured product components must be effected in accordance with the corresponding local regulations. For further information please refer to the safety data sheets.	
Safety Instructions	AG100 component B is classified as hazardous according to Regulation (EC) 1272/2008 (CLP). It is therefore necessary, before beginning processing, to become familiar with the precautions and safety advice as indicated in the material safety data sheet.	
First Aid	**Eye Contact:** Immediately flush with large amounts of water. Seek medical attention. **Inhalation:** Move to fresh air if symptoms occur. If breathing is difficult, seek medical attention. **Ingestion:** Seek medical attention immediately. **Skin Contact:** Wipe off contaminated area and wash with soap and water.	
Limitations	Low temperatures will increase viscosity making product more difficult to pump. Low temperatures or cold water will slow down the reaction time. pH of reaction water should be between 3 and 10 for optimum foam. Keep lid tightly closed.	
Personal Protection	Safety goggles, face shield, impermeable gloves, long sleeves and pants. Use in well ventilated areas. Open doors and windows. In confined areas use mechanical ventilation to keep vapor concentrations low. Prevent direct contact with skin and eyes. See SDS.	
Limited Warranty	Alchemy-Spetec warrants this product to be free from manufacturer's defects and to meet all published properties on current Technical Data Sheet for a period of one year if used according to published instructions and within the shelf life. The user is responsible for determining suitability for intended use and assumes all risk. No other warranties expressed or implied shall apply including any warranty of merchantability or fitness for a particular purpose. Purchaser's sole remedy is limited to the purchase price or product replacement exclusive of cost of labor or other materials.	
Latest Information	Before each use read latest Technical Data Sheets, Safety Data Sheets, and instructions available at www.alchemypolymers.com. Nothing contained in any Alchemy-Spetec materials or verbal instruction relieves the user of the obligation to read and follow all usage instructions and warnings for each product contained in the latest Technical Data Sheets and Safety Data Sheets. All information given by Alchemy-Spetec about Alchemy-Spetec products and procedures is given in good faith based on our current experience level and knowledge when materials are properly stored, handled, and applied. Jobsite conditions always vary, and for this reason Alchemy-Spetec assumes no liability for the provision of such information or instructions. Neither shall any legal relationship be created by the provision of such information.	
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