

AG200

AG200 is a three-component, water-swelling acrylate hydrogel.

Description AG200 is a three-component, water-swelling hydrogel based on acrylate or methacrylate that hardens to an elastic product.

AG200 is especially noted for its low blending viscosity that is almost equivalent to the viscosity of water. AG200 can be applied in the case of grout curtains and ground stabilization.

Differing pot lives can be defined (see table pot life below), adapted to the application and environmental temperature, by varying the B-amount of salt (3.53oz up to 35.27oz based on 44,09lbs A1 component).

Processing The A2-container 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.

Appropriate injection pumps: BOOSTER 10 A MINIBOOSTER 5U.

Different pot-lives can be defined depending on the amount of B salt and the temperature. The indicated quantities of salt (B component) must not fall short or be exceeded.

Pot-life depending on B-amount and temperature:

	3.53oz	7.05oz	17.64oz	28.22 Oz	35.27oz
77°F	0:47	0:27	0:17	0:12	0:10
68°F	0:56	0:33	0:21	0:17	0:15
59°F	1:10	0:48	0:27	0:20	0:17
50°F	1:56	1:07	0:37	0:30	0:23
41°F	3:11	1:12	0:40	0:33	0:26

(Amounts based on 44,09lbs A1- and 2,20lbs A2-component)

Longer reaction times can be achieved by use of the AG200 retarder. This retarding additive (2,20lbs PE bottle) is being emptied fully into the prepared water bucket together with the appropriate quantity of salt component.

The quantity of water must be equal to the quantity of A1 and A2 component (44,09lbs A1 + 2,20lbs A2). The mixture of water, salt and retarder is being mixed for at least 3 minutes.

Pot-life depending on B-amount and temperature in case of using AG200 retarder:

	3.53oz	7.05oz	17.64oz	28.22 Oz	35.27oz
77°F	28:48	10:12	6:44	4:48	3:30
68°F	40:30	15:10	10:20	7:00	5:40
59°F	61:40	24:48	13:24	9:23	7:24
50°F	102:42	40:20	21:36	12:44	11:28
41°F	157:44	60:16	34:16	24:04	19:28

(Amounts based on 44,09lbs A1-component , 2,20lbs A2-component and 2,20lbs retarder)

A reaction time of 2 to 4 minutes should be defined in the case of grout curtains and ground stabilization, to achieve optimal saturation of the ground.

It has been proved in extensive tests that faster reaction times have a negative effect as no uniform gel curtain or rather uniform distribution of the injection material can be achieved.

Technical Data

Substance data of components:

Component	Consistency Colour Odour	Specific Density (68°F)	Dynamic Viscosity (68°F)
Comp. A1	liquid blue characteristic	approx. 1188.63oz/ft3 DIN EN ISO 3675	approx. 40cps DIN EN ISO 3219
Comp. A2	liquid colourless amine-like	approx. 1118.70oz/ft3 DIN EN ISO 3675	approx. 280cps DIN EN ISO 3219
Comp. B	solid white odourless	approx. 2587.01oz/ft3	Bulk density (68°F) approx. 1148.67oz/ft3
Retarder	liquid yellowish small	approx. 998.84oz/ft3 DIN EN ISO 3675	approx. 1cps DIN EN ISO 3219

Mixture of A- and B-component:

Processing temperature*	41 - 104°F	substrate temperature
Viscosity of mixture (68°F)	approx. 4.2cps	DIN EN ISO 3219

Reaction data at 68°F:

Pot-life **	15s - 60 min	DIN EN 14022
Final curing **	2 - 70min	

Properties after curing:

Consistency	soft-elastic	
Colour	blue	
E-modulus	approx. 37.70psi	DIN EN ISO 527-3
Tensile strength	approx. 5.80psi	DIN EN ISO 527-3
Elongation at break	approx. 510%	DIN EN ISO 527-3
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 B component and AG200 Retarder.

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Packaging	A1-component A2-component B-component Retarder	5 gallon 2,20lbs plastic bottle 2,20lbs plastic can 2,20lbs plastic bottle
	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	AG200 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. Read the relevant safety data sheets before use.	
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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