



Gelacryl™ Superflex

Gelacryl Superflex is a 2-component acrylic based resin developed for injection into pores, cracks, capillaries, voids and honeycombed concrete

Product Description

Gelacryl™ Superflex is a 2-component acrylic based hydrophilic resin, consisting of 2 components: a resin and an initiator which are pumped with a twin piston pump at a 1:1 ratio. Once polymerised, Gelacryl Superflex forms a resilient, highly elastic gel. Due to its exceptionally low viscosity and low surface tension, Gelacryl Superflex exhibits better penetration into cracks than water.

Resin : Gelacryl Superflex

Catalyst : TE 300

Initiator : SP 200

Decelerator : KF 500

Field of Application

- Repairing water leaks in structures under permanent water pressure.
- Preventative waterproofing of structures under permanent water pressure.
- Water control during tunnelling operations.
- Curtain grouting.
- Waterproofing of underground structures in concrete or masonry (cellars, underground car parks, etc.).
- Sealing of cracks in concrete and rock formations.
- Waterproofing of tunnel liners.

Product Advantages

- Gelacryl Superflex is injected with a twin piston, 1:1 ratio pump.
- The exceptionally low viscosity-Gelacryl Superflex penetrates into cracks 0.1 mm wide.
- Large post-expansion in contact with water: approx. 150%.
- Non-corrosive and non-toxic.
- Excellent adhesion to concrete.
- Has a very good chemical resistance to most acids, alkalis and micro-organisms (*).
- Polyacrylate resin, free of acrylamides.

(*) For chemical resistances please contact your GCP representative.

Application

Consult the MSDS before mixing and/or handling.

- Gelacryl Superflex is developed to be used below ground or in conditions of permanent moisture.
- Gelacryl Superflex is typically injected into defective areas. Holes are drilled in the affected area at a 45° angle. Water can be forced into the hole to determine whether all cracks can be injected and if additional holes need to be drilled.
- Visible surface leaks should be sealed with a fast setting cement. Allow the cement to harden completely before injecting Gelacryl Superflex.
- Use standard packers or equipment according to local regulations.
- Gelacryl Superflex is then injected with a high pressure pump capable of 200 bars. This forces the Gelacryl Superflex deep into the structures and allows penetration of even the smallest cracks.
- When surface leaks show up during pumping, stop immediately and seal the leak by approved method.

1. Composition

- The injection grout needs to be prepared immediately before the injection. Do not dilute the resin to less than 20% solids when injecting.

Component 1	Component 2
Gelacryl Superflex TE 300	Water SP 200

- After preparation, the components are injected simultaneously at a ratio of 1:1.

2. Preparation

Component 1

- Gelacryl Superflex container. Add the required quantity of TE 300 catalyst to the Gelacryl Superflex resin. Gelacryl and TE 300 need to be thoroughly mixed.

Component 2

- SP 200 tank. The tank is first filled with the required quantity of water as the Gelacryl Superflex tank after which the SP 200 is added. The mixture is thoroughly mixed.
- Typically a 2% accelerator is used. At temperatures below 15 °C or in case of high water ingress, use 3-4% accelerator. This will give a normal gel time of 1-3 minutes which is appropriate for waterproofing active leaks.

T (°C)	Product	Resin (l)	TE 300 (l)	Water (l)	SP 200 (kg)	No. of Containers	Gel Time
5 °C	GASF	42.00	1.90	42.00	2.25	5	1'
5 °C	GASF	42.00	1.90	42.00	1.35	3	2'
5 °C	GASF	42.00	1.90	42.00	0.90	2	3'
10 °C	GASF	42.00	1.30	42.00	1.80	4	1'
10 °C	GASF	42.00	1.30	42.00	0.90	2	2'
10 °C	GASF	42.00	1.30	42.00	0.45	1	3'
15 °C	GASF	42.00	1.10	42.00	1.35	3	1'
15 °C	GASF	42.00	1.10	42.00	0.90	2	2'
15 °C	GASF	42.00	1.10	42.00	0.45	1	3'
20 °C	GASF	42.00	0.80	42.00	1.35	3	1'
20 °C	GASF	42.00	0.80	42.00	0.90	2	2'
20 °C	GASF	42.00	0.80	42.00	0.45	1	3'

3. Injection

- The injection work should be carried out with a twin piston, 1:1 ratio high pressure pump. Please read the relevant Technical Data Sheet. For injection procedure, please read the Injection Manual.
- Delayed gel times (for example for soil injections) can be reached by adding KF 500 decelerator. Contact our technical department for correct formulations.

Appearance

After curing, product turns into a flexible gel, which remains flexible under water.

Gelacryl Superflex Resin: Blue liquid

TE 300: Transparent liquid

SP 200: White salt

KF 500 : Orange liquid

Consumption

Has to be estimated by the engineer or operator and depends on width and depth of the cracks and voids to be filled.

Packaging

Gelacryl Superflex

25 kg plastic jerry-can

1 pallet = 24 jerry-cans

TE 300

25 kg plastic jerry-can

1 pallet = 24 jerry-cans

Technical Data / Properties

Property	Value	Norm
Gelacryl Superflex		
Density	Approx. 1.17 kg/dm ³	ASTM D-1638
Viscosity at 25 °C	Approx. 15-20 mPas	ASTM D-1638
Solids	Approx. 45%	ASTM D-1010
Boiling Point	100 °C	Test DNC
Solubility in water	100%	Test DNC
Catalyst TE 300		
Concentration	Approx. 85%	Test DNC
Initiator SP 200		
Density	Approx. 1.9 kg/dm ³	ASTM D-1638
Solubility in water	Approx. 79%	Test DNC
Decelerator KF 500		
Concentration	10%	Test DNC
Dilution	Clean tap water	
Cured resin based on a 22% solids mixture		
Elongation at Break	300%	ASTM 638
Expansion in contact with water	Approx. 150%	Test DNC

SP 200

0.45 kg plastic bottle

1 box = 22 bottles

1 pallet = 24 boxes

KF 500

25 kg plastic jerry-can

1 pallet = 24 jerry-cans

Storage

Gelacryl Superflex, TE 300, SP 200 and KF 500 should be stored in a frost free environment under cover, clear of the ground, in the original closed packaging. Storage temperature must be below 35 °C.

Shelf life: 1 year.

Accessories

To be ordered separately

- IP 2C-200-A air driven twin piston pump.

- Packers and connectors.

(Please consult the relevant Technical Data Sheet).

Health and Safety

Gelacryl Superflex is classified as irritating.

Always wear appropriate protective gear: rubber gloves, goggles and boots. In case of contact with the eyes, flush with water for 15 minutes. If swallowed, call a physician immediately.

For full information, consult the relevant Material Safety Data Sheet.

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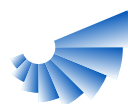
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