Injection Gels

WEBAC® 270 CE

Range of application

- Crack repair in components according to DIN EN 1504-5
- Sealing of construction joints
- Backfilling of joints
- Stabilization and sealing of foundation soil
- Construction sealing of buildings

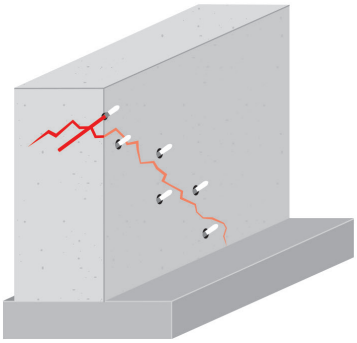
Properties

- Polyacralyte-based injection gel
- Low viscosity
- Adjustable reaction time
- Neglected volume loss during the drying process
- High resistance also in alcaline and salt-loaded areas
- Solid yet elastic, absorbs dynamic and mechanical stress

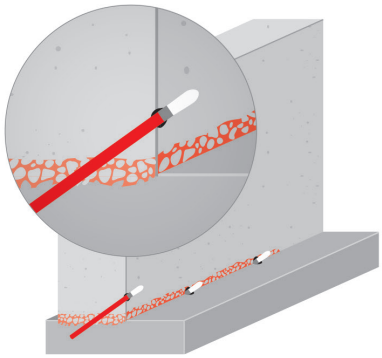
Test certificates

- Declaration of performance in accordance with the Construction Products Regulation (system 2+)*
- Certificate of conformity of the factory production control
- Test for corrosion behavior
- List of chemical resistance

Examples



Crack injection into concrete



Sealing of construction joints

*tested with undiluted component A

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Technical Information

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Technical data

Mixing ratio			Values								
			Comp. A = A1 + A2 10 : 1 parts by weight			Comp. B = water : B-powder concentrate 99.5 : 0.5 parts by weight					
			A : B = 1 : 1 parts by volume								
Density, 20 °C (DIN ISO 2811)			Comp. A1 ≈ 1.06 g/cm³ Comp. A2 ≈ 0.94 g/cm³ Comp. B ≈ 1.0 g/cm³								
Application temperature Building structure and material			> 5 °C								
Viscosity of mixture (WEBAC test specification based on DIN ISO 3219)				5 °C ≈ 5.8 mPa·s		21 °C ≈ 3.5 mPa·s			35 °C ≈ 3.2 mPa·s		
Reaction time with variable A2 concentration		A2	ml or g		water	5 °C	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C
	flow limit	100%	1,968 ml	1,850 g	0 ml≙g	7:00	6:00	3:40	2:40	2:20	2:00	1:40
		90%	1,771 ml	1,665 g	197 ml≙g	9:30	8:20	4:25	3:05	2:45	2:15	2:00
		80%	1,574 ml	1,480 g	394 ml≙g	20:00	12:35	5:40	3:15	2:55	2:25	2:10
		70%	1,378 ml	1,295 g	590 ml≙g	23:15	15:40	6:30	3:30	3:10	2:40	2:15
		60%	1,181 ml	1,110 g	787 ml≙g	-	34:45	7:20	3:55	3:40	3:00	2:20
		50%	984 ml	925 g	984 ml≙g	-	-	7:55	4:15	4:05	3:25	2:25
		40%	787 ml	740 g	1,181 ml≙g	-	-	13:00	5:15	4:50	4:00	2:40
		30%	590 ml	555 g	1,378 ml≙g	-	-	32:00	6:30	5:50	4:45	3:25
		20%	394 ml	370 g	1,574 ml≙g	-	-	-	10:50	6:25	5:40	4:35
		10%	197 ml	185 g	1,771 ml≙g	-	-	-	30:30	21:50	15:00	9:40
		5%	98 ml	93 g	1,870 ml≙g	-	-	-	-	-	-	15:00
	solid	100%	1,968 ml	1,850 g	0 ml≙g	14:00	11:00	7:20	4:45	4:20	3:30	2:50
		90%	1,771 ml	1,665 g	197 ml≙g	18:45	13:15	7:50	5:15	4:45	3:40	3:15
		80%	1,574 ml	1,480 g	394 ml≙g	30:50	18:00	9:25	5:30	5:00	4:05	3:25
		70%	1,378 ml	1,295 g	590 ml≙g	33:30	21:00	10:30	6:00	5:20	4:30	3:35
		60%	1,181 ml	1,110 g	787 ml≙g	-	43:20	11:35	6:40	5:50	5:00	3:40
		50%	984 ml	925 g	984 ml≙g	-	-	12:40	7:00	6:20	5:30	3:50
		40%	787 ml	740 g	1,181 ml≙g	-	-	19:10	8:40	7:50	6:15	4:25
		30%	590 ml	555 g	1,378 ml≙g	-	-	39:30	10:25	8:30	7:40	5:45
		20%	394 ml	370 g	1,574 ml≙g	-	-	-	18:40	11:25	9:20	7:25
		10%	197 ml	185 g	1,771 ml≙g	-	-	-	45:00	32:30	23:55	16:00
		5%	98 ml	93 g	1,870 ml≙g	-	-	-	-	-	-	23:25
Watertightness (DIN EN 14068)			7 bar								
CE classification (DIN EN 1504-5)			U(S2) W(1) (1/2/3) (5/35)								
Exposure scenarios according to REACH			Assessment of industry standard application								

The specified data are values determined under laboratory conditions and are subject to a certain fluctuation. Deviations are possible in practice depending on the respective object situation.a

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Preparatory work

Structural analysis:

- Preparation of a building condition analysis to determine the actual condition of the structure/component
  - Structure condition
  - Moisture condition
  - Salt load

This results in:

- Planning of suitable remediation measures in accordance with the applicable rules and standards
- Selection of suitable material
- Selection of packers
- Positioning of drill holes and placement of the packers
- Carrying out a test injection if necessary

Application instruction

- Injection by 2C pump (stainless steel)
- Only use stainless steel (V4A) or wooden stirrer for mixing
- All prepared components must be used immediately
- Only use pure WEBAC material without any residues of cleaning agents or other impurity
- The reaction speed is influenced by the temperature of the material and the building structure – higher temperatures accelerate, lower temperatures slow down the reaction

Coloring

- WEBAC Injection Gels can be colored with **WEBAC® F200** to monitor the water displacement, the material distribution as well as to identify any gel leakage
- To color the injection gel, mix ≈ 1% (referring to component A) of the blue color agent **WEBAC® F200** into component A
- The color intensity of the gel will decrease gradually

Mixing

Mixing of component A

- Empty the smaller container of component A2 completely into the larger container of component A1
- Mix both components via stirring while pouring until homogenous

Mixing of component B

- Dissolve B-powder concentrate in a clean plastic container (canister 20 l) by intensive stirring in clean tap water (the required amount of water is then easily obtained by adjusting the level of component B to the level of component A)

→ Prepared **components A** and **B** are delivered at a mixing ratio of 1 : 1 from respective containers directly with a 2C pump and are mixed homogenously in the mixing head

Application

- Adapt the injection pressure to the nature and condition of the building structure
- Inject the injection gel from bottom to top, beginning at the lowest drill hole level
- Continue the injection until injection gel starts leaking from the adjacent packers

Final work and cleaning

- The packers can be removed immediately after gel formation
- Cured gel must be removed from the drill holes/drill hole walls down to about 10 cm depth and the drill holes must be filled (preferrably use pcc mortar for concrete and quick set mortar for masonry)
- After completion of the injection, the 2C pump must be thoroughly rinsed with water, at least 20 liters of water per piston side (component)
- Gelled residues must be removed from the equipment mechanically immediately after use
- Observe the technical data sheet and the manual of the injection pump

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Produktdaten

Delivery form	**WEBAC® 270**	**comp. A1** 18.5 kg	**comp. A2** 1.85 kg	**comp. B** 0.1 kg
	WEBAC® F200	**Unit** 1.0 kg		
Storage	• Between 5 °C and 25 °C • Protected from moisture and light • In original, sealed containers			
Compatibility	• Reacted gels are insoluble in water and fuels			
Resistance	• Resistant to diluted acids and salts damaging the structure • Resistant to alternating frost and thaw			

Occupational safety

The safety regulations of the industrial trade associations and the WEBAC Safety Data Sheets are to be observed at all times when working with this product. Safety data sheets according to Regulation (EC) No. 1907/2006 (REACH) must be accessible to all persons responsible for occupational safety, health protection and the handling of materials. For further information, please see the separate information sheet “Occupational Safety” in our product catalog or www.webac.com.

Waste disposal

In Germany, empty containers can be disposed of via “Interzero Circular Solutions Germany GmbH” observing the respective terms and conditions. It is not possible to dispose of containers at production facilities or delivery warehouses. For more detailed information, please see the separate information sheet “Disposal Notes” in our product catalog or www.webac.com and the safety data sheets.

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