



TECHNICAL DATA SHEET

RASCOhybrid HMS317

RASCOhybrid HMS317 is a slow-reacting, solvent-free, 2-component polyurethane injection resin for use in hybrid mortar systems.

USE

RASCOhybrid HMS317, a slow-reacting polyurethane resin system, though with finely adjustable gel time, can be added to cement suspensions (RASCOhybrid HMS C1 or equivalent) that are used to waterproof and stabilize dry to heavily water-bearing soft ground in rock masses. Its adjustable gel times, controlled viscosity and reaction behaviour make it ideal for waterproofing above water and underwater. Combining synthetic resins and cementitious materials, the hybrid system enjoys the benefits of both systems.

FEATURES

- high ground permeation
- adjustable gel time and viscosity
- prevents washing-out of cement
- hybrid system with very high compressive strengths
- gel time individually controllable using RASCOhybrid HMS AC
- high cost-effectiveness



TECHNICAL / PHYSICAL DATA

	A component	B component	C1 cement*	A:B mix	A:B:C mix
Supplied form	liquid	liquid	powdery		The A, B and C
Material colour	slightly yellowish	brown	grey		components shall
Container type	canister	canister	bag		be proportioned so
Container size	20 /1000 kg	24,3 /1250 kg	25 kg		as to meet site-
Viscosity (DIN EN ISO 3219)	190 - 250 mPas	180 - 240 mPas	n/a		specific requirements.
Density (DIN EN ISO 2811)	1,01 kg/ltr (± 0,04)	1,23 kg/ltr (± 0,04)			The technical
Hazardous goods/ADR	none	none			properties vary
Mixing ratio				1:1 (by volume)	accordingly and
Setting time at 25° C				approx. 50 min.	require separate
Tensile bond strength (DIN EN 12618-2)				approx. 3,7 N/mm ²	definition and
Flexural tensile strength (DIN EN 196-1)				approx. 17,7 N/mm ²	verification for
Tensile strength (DIE EN ISO 527-3)				approx. 44,2 N/mm ²	each project.
Compressive strength (DIN EN 196-1)				approx. 62 N/mm ²	
Application temperature	from +5° C bis +40° C				
Storage/shelf life	12 months in original container, from +10° C to +25° C, in dry conditions				

*For further technical/physical data on RASCOhybrid HMS C1 cement, please consult the relevant data sheet.

APPLICATION

The A and B components are supplied in the correct, ready-to-use volumetric proportions of 1:1. RASCOhybrid HMS AC (accelerator) is separately added to the A component and mixed with a stirrer.

Application is by means of an injection pump, which acts as a bypass to the cement suspension and delivers the components in the ratio 1:1 by volume. The A and B components are delivered separately and mixed together by a static mixer immediately before being added to the cement suspension. The reaction of all mixed components produces a polyurethane hybrid mortar.

GENERAL GUIDELINES

The gel and curing times are temperature-dependent. The reaction between the components is significantly influenced by the ambient, material, rock mass and groundwater temperatures. A minimum application temperature of +5°C should be observed for the individual components.

The components shall be properly blended into a homogeneous mix. For this purpose, a static mixer of min. 300 mm length should be used. As all RASCOhybrid HMS resins are moisture-sensitive, always ensure that the containers are properly sealed during storage.

Do not use water or aqueous agents to clean the injection pump and bypass pipe.

SAFETY NOTICE

Suitable protective clothing, gloves and goggles shall be worn. An eyewash bottle shall be kept at hand. For further details, please consult the safety data sheet.

EXPERT REPORTS

- Groundwater suitability, MFPA Leipzig, Germany
- Ageing behaviour selected performance characteristics, MFPA Leipzig, Germany
- Compressive strength development, FHNW Muttenz, Switzerland
- Further reports on request

SUPPLY / ADDITIVES

Item No.	Product	Container	Contents
1113.3171.001	RASCOhybrid HMS317 A-Comp	canister	20 kg
1113.3179.001	RASCOhybrid HMS317 B-Comp	canister	24,3 kg
1113.3171.002	RASCOhybrid HMS317 A-Comp	IBC	1000 kg
1113.3179.002	RASCOhybrid HMS317 B-Comp	IBC	1250 kg
1113.3901.001	RASCOhybrid HMS317 AC	canister	5 kg
1113.3901.002	RASCOhybrid HMS317 AC	canister	20 kg
1113.9211.111	RASCOhybrid HMS C1	bag	25 kg

Grouting machines, equipment and accessories available on request

LEGAL NOTICE: The information provided on the use and application of our products in this technical data sheet is based on the present state of our knowledge. The customer shall bear sole responsibility for the proper specification, application and use of the products in line with the intended purpose, project-specific conditions and external actions. The most recent technical data sheet shall apply. The current technical data sheets are available at www.rascor.com. Our General Terms of Business shall form an integral part of this technical data sheet.

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