



TECHNICAL DATA SHEET

RASCOhybrid HMS317N

RASCOhybrid HMS317N is a fast-reacting, solvent-free, 2-component polyurethane injection resin for use in hybrid mortar systems.

USE

RASCOhybrid HMS317N is a fast-reacting polyurethane resin system, with factory-preset gel time, for addition to cement suspensions (RASCOhybrid HMS C1 or equivalent) that are used to waterproof and stabilize dry to heavily water-bearing soft ground and rock masses. Its factory-preset gel time and reaction behaviour make it ideal for waterproofing above water and under-water.

FEATURES

- high ground permeation
- preset gel time speeds up material preparation where large quantities are required
- minimises washing-out of cement
- Adjustable viscosity through addition of PU to the cement suspension
- hybrid system with good compressive strengths
- additional acceleration of gel time possible through use of 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 | IBC | IBC | bag | | be proportioned so |
| Container size | 1010 kg | 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 | | | | 15 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. Should any additional acceleration of the gel time be required, then this is achievable through the use of RASCOhybrid HMS AC. This 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 |
|---------------|----------------------------|-----------|----------|
| 1113.3172.002 | RASCOhybrid HMS317N A-Comp | IBC | 1010 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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