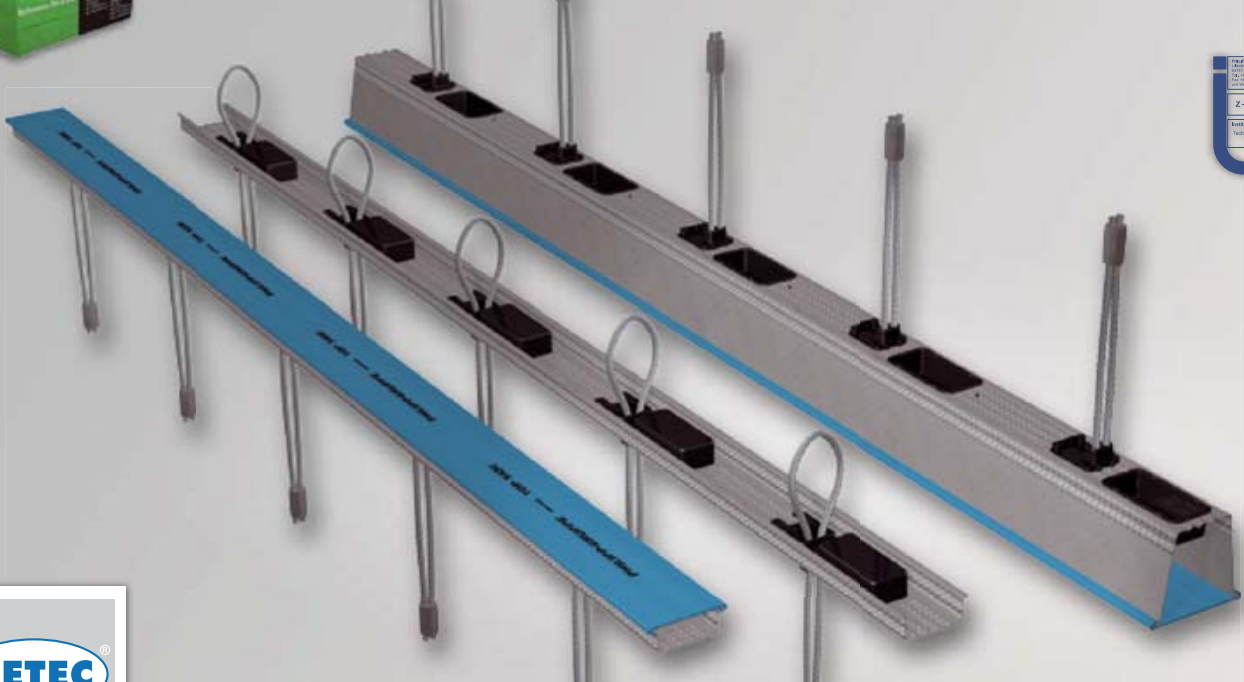


# PHILIPPGROUP



## PHILIPP - BETEC® Thixo mortar



for the PHILIPP Power Duo System

Technical Data Sheet

## PHILIPP - BETEC® Thixo mortar

The system-approved, high-quality and thixotropically adjusted PHILIPP - BETEC® mortar is ready for use and consists of approved raw materials. More details can be found in the approval (no. Z-21.8.-2028).

### Application

The PHILIPP - BETEC® Thixo mortar connects precast concrete elements to each other permanently and force-fit via integrated, approved Power Duo rails.

### Properties

- Due to a controlled volume increase the mortar is shrink-free and guarantees a force-fit connection.
- Cement-bound and free of chloride.
- Conform to fire resistance class A 1 (non-combustible).
- Flexible consistency, homogeneous and void-free grouting of the joint.
- Can be trowelled immediately (stable).
- Thixotropical behaviour (without sealing).
- Vertical joints several meters high can be filled in one workstep.
- High early strength with a low W/C – ratio.
- Strength class C 55/67.
- Very good and easily pumpable without sealing.
- Very high surface adhesion to steel and concrete.
- High resistance to frost deicing salt.
- Resistant against: XO;XC 1,2,3,4; XD 1,2,3; XS 1,2,3; XA 1,2;XF 1,2,3.
- Waterproof.



Following processing instructions are only for information. Please refer also to the information given in the Installation Instruction and the approval of the Power Duo system.

### Processing

#### 1. Pre-treatment

The Thixo mortar is ready for use. Only water has to be added. In order to improve the adhesion the concrete surface must be wetted. Adhesion-reducing parts must be removed from the joint.

#### 2. Mixing

The Thixo mortar is mixed with the amount of water specified. Either in a compulsory mixer (and then pumping of the mixture) or a suitable continuous mixer the mixing is done. The mixing time in a compulsory mixer is approximately 4-5 minutes. First, 4/5 of the required amount of water is filled in, the powder component is added, the mixture is mixed for approx. 2-3 minutes and then the remaining water is added until the consistency wanted is reached and a homogeneous mortar matrix is present.

#### 3. Post-treatment

The mortar surface must be protected against too fast drying by suitable measures (e.g. cover with jute bags) for approximately 3 days.

Low temperatures prolong the processing time and retard the early strength, high temperatures accelerate the progress of the early strength and reduce the processing time.

### Consumption

One bag (25 kg) of ready-mixed mortar becomes approx. 13 litres of green mortar.

### Storage

Dry, frost-free and in originally closed bags the powder has a storage life of 12 months.

### Packaging

25 kg strong paper bag, 40 pieces = 1,000 kg per euro-pallet (wrapped with foil).

## PHILIPP - BETEC® Thixo mortar

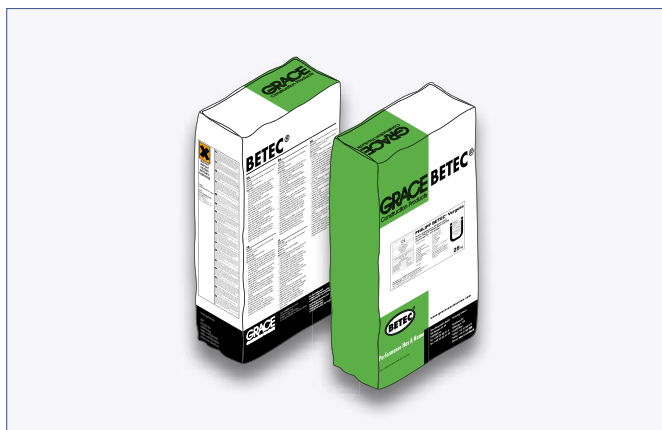
Technical data		
all data determined at +20°C		PHILIPP - BETEC® Thixo Mortar
Range of grading curve	[mm]	0 to 0.5
Compressive strength class		C 55/67 (high strength)
Green mortar density	[kg/dm <sup>3</sup> ]	ca. 2.0
Swelling measure	[Vol-%]	≥ 0.1
Processing time (20°C) (depending on temperature) ①	[min]	≥ 15
Processing temperature (concrete element temperature) ②	[min/max]	+5°C / +30°C
Maximum amount of water ③	[Litre/25 kg]	3.7 - 4.2 (see information on bag)
Calculation quantity	[kg/m <sup>3</sup> ]	approx. 2.080
Consistency		thixotropic
Compression strength after 24 hours④	[N/mm <sup>2</sup> ]	ca. 40
Compression strength after 28 days④		ca. 75

① With temperatures lower than +5°C specific measures in winter time must be started.

② Low temperatures prolong the processing time and retard the early strength, high temperatures accelerate the progress of the early strength and reduce the processing time.

③ Drinking water quality.

④ Storage of the test specimen according to DIN EN 196-1, the strength values are average values from the production control.



Please refer to the approval and Installation Instruction of the Power Duo System. These can be found at [www.philipp-group.de](http://www.philipp-group.de) or are available on request.



The PHILIPP - BETEC® mortars can be supplied from:

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The data given in the data sheet, the application-technical guidance and other recommendations are based on extensive research and experience. However, they are not binding and do not absolve the customer to check the products and procedures regarding their applicability for the intended use. All data are only guide values and are determined at +20°C.

Notes:

