

FloorBridge® Connect 20 TK

PMMA based compound adhesive for freezing areas



Application

Adhesive and adhesive mortar for friction-locked connections of and in old concrete and new concrete with FloorBridge® joint profiles.

Advantages

- easier workability, easier mixing
- quick hardening
- excellent adhesion on various surfaces
- good hydrolysis resistance
- high mechanical strength
- solvent-free

Product Data

Colour shade base compound (Connect 20)	grey
Catalyst liquid (Connect 20 liquid catalyst)	crème-white
Mixed	grey
Delivery size	Container 10 kg Liquid catalyst: 0,44 l (45 x 10 kg base compound = 1 Pal)
Approval	CE mark in accordance with EN 1504-3

Technical Data

Chemical basis	Polymethylmethacrylate
Density (23°C)	approx. 1.5 kg/l (mixed)
Coating thickness	max. 5 mm per application

Greater coating thicknesses require multiple applications. To prevent shortening the workability time, individual containers should be used up and never mixed with freshly prepared material.

Consumption / Dosing	1,5 kg/m ² per mm layer-thickness – ca. 6 kg/meter joint profile
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Mechanical/physical properties

Compressive strength (EN 12190)

Curing time*	
3 hours	50 N/mm²
24 hours	60 N/mm²
7 days	60 N/mm²

*Catalyst addition depending on temperature application range – see table catalyst dosing.

Adhesive tensile strength

At 20°C: on concrete dry: > 2 N/mm² (demolished concrete)

Application notes

In addition to this product data sheet, please observe the relevant notices in the FloorBridge® installation manual.

Substrate condition

The substrate must have sufficient load capacity (compressive strength at least 40 N/mm²). The surface must be level, fine textured, stable, dust-free, dry, grease and oil free and free from loose and sanding particles. The tear strength must be at least 1.5 N/mm². If necessary, the substrate must be dried. The surface to be coated must be dry and free from ice. The surface must remain dry until it has hardened. (Remaining moisture for concrete max 6%). If the substrate requires re-profiling, we recommend PMMA or epoxy mortar with a compressive strength of at least 40 N/mm². For example, we recommend epoxy-based product FloorBridge® epoxy mortar 300. Carry out preliminary tests. See technical data sheet (Processing temperature, etc.!).

Application conditions/limits

Substrate temperature	-25°C to -10°C
Ambient temperature	-25°C to -5°C
Material temperature	-5°C to +5°C

Catalyst dosing according to table.

The composite adhesive is mixed in the deep-freeze area.

Dew point

Observe the dew point and exclude condensation! The substrate temperature during the application must be at least +3°C above the dew point temperature.

The relative humidity must be < 90%.

Application instructions

The reaction times will shorten with increasing temperatures and higher catalyst ratios, and vice versa accordingly. The following table indicates the recommended catalyst quantity to adapt the hardening reaction to the temperature.

	Catalyst dosing FloorBridge® liquid catalyst 20
Underground temperature in °C	-25 bis -10
Liquid catalyst in %	4

During the curing phase, care must be taken to ensure that no cold draughts blow across the surface of the composite adhesive.

Application method and devices

Recommended mixer with Dippel blade mixing head. To apply a thin adhesive coating, apply the mixture to the pre-treated substrate with a putty knife, trowel, etc. Observe the dew point gap (+3°C) before, during and after coating.

Mixing

First, stir the contents of the bucket thoroughly.

Then add the catalyst whilst the mixer is running at low speed and mix for 2 minutes.

Care must be taken to ensure that the material is picked up from the bottom and sides of the container.

The composite adhesive must not be stored below -5°C for any length of time and must be mixed in the freezer compartment, as otherwise the pot life will be reduced.

Store between -5°C and +5°C; transport the material to the joint, open it immediately and mix it without storing it for long periods in the freezer, so that the material does not cool down too much. This ensures a pot life of approx. 25 minutes.

If the material cannot be stored at these temperatures, it must be placed in the freezer for a period prior to application, depending on the storage temperature, until the application temperature has been reached. See the separate table with time specifications. e.g.: Material temperature: 22°C, then place in the freezer at -25°C; wait 2.5 hours without stirring until a working temperature of -5°C is reached.

Device cleaning

All tools and application devices must be cleaned immediately after use with a conventional cleaner for PMMA. (e.g.: ethyl acetate) Hardened material can only be removed mechanically.

Potlife

At -25°C and 4% catalyst: approx. 25 mins.

The pot life begins when mixing. The material must be cooled to a temperature between -5°C and +5°C prior to adding the catalyst and for application. Mixing larger quantities generates more heat of reaction. This shortens the pot life.

Bonding SM sealing tape / wall connection rubber

When bonding SM sealing tape, ensure that the tape (except for the expansion zone) is fully covered on both sides. (This is particularly important in the upward pull area).

When bonding the wall connection rubber with Connect 20, a wall panel must be bonded immediately after bonding as protection.

Rainproof

after approx. 45 minutes.

Grinding/walkable:

after approx. 60 minutes

Drivable over:

after appr. 3 hours

Sealing

The joint profile and the existing adhesive coating between profile and concrete can be sealed after grinding. Products on binder base PMMA (FloorBridge®), polyaspartic, epoxy and PU are suitable. However, tests before are recommended. See technical data sheet (Processing temperature, etc.)

Further notes

All values listed on the technical data sheet are based on laboratory trials. In practice, the values may deviate due to various influences.

Curing conditions

Notes

The FloorBridge® compound adhesive was formulated to have the least possible creeping under continuous loads. Due to the creep behaviour, which all polymers have under loads, creeping must be taken into account when calculating the permissible load. The constant actual load on the bonding must never exceed 20-25% of the breaking load. No additional safety factors must be considered in this case. Exposure to UV radiation causes the colour to change.

Safety regulations

Important safety notes

For detailed information, please consult the current safety data sheet at www.floorbridge.com

Storage conditions / shelf life

12 months in unopened containers from the date of production. The products must be stored in a cool, dry, frost-free, and airtight container. The composite adhesive must be brought to a temperature of at least 10°C before use. Direct sunlight on the containers should also be avoided on the construction site. After partial removal, reseal the containers airtight!

Legal Notes

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