



MC-Ballastbond 70

Special resin for ballast bonding and soil strengthening

Product Properties

- Low-viscous, polyurethane based duromer resin
- Short reaction time
- Solid bonding
- Fulfills KTW-requirements of test group C (mounting parts)
- Fulfills requirements of the DIBt bulletin "Evaluation and effects of construction products on soil and ground water" (11/2000)
- Flame resistant (material class B1 according to DIN 4102)

Areas of Application

- Ballast bonding of roadbed and tracks. Fixture under dry and limited wet conditions.
- REACh-Assessed exposure scenarios: periodical water-contact, application

Application Notes

Preparation

Before the application, the construction has to be inspected according to technical standards and regulations. The ballast to be bond must be dry, clean and free from any contaminants. Water must be breamed or flamed off. Soil injection may be carried out into any soil, even damp or moist.

Mixing

MC-Ballastbond 70 consists of two components, component A (base) and component B (hardener).

Before application component A must be mix up so that a homogeneous coloured component is allocated.

The have to be mixed in the head of a two-component injection-pump using a suitable static mixer. Necessary mixing quality is achieved by using helix-mixers (mixing length: 20 cm per mixer) or inline static mixers (length approx. 15 cm).

Application

The components are mixed in the mixing head of a two-component injection-pump with an adequate pressure and delivery rate (e.g. MAXIMATOR GX 45 PU).

The material is distributed in a special spraying angle via a lance onto the ballast. Size of nozzle must be optimized under site conditions (e.g. Delvano H1/4V-8010 Veejet or -8030 or-8040). The quantity of material used per m² depends on the individual job.

For application the MC- I 700 is also useable.

In contact with water MC-Ballastbond 70 turns into a hard-flexible closed-cell foam.

Minor foaming is not affecting the bonding of the ballast.

At temperature below 6 °C the processing of MC-Ballastbond 70 must discontinued.

Open packs must be used within 24 hours.

Acceleration of reactivity and additives

The reaction time and the characteristics of the reacted product can be modified via accelerators and additives: MC-KAT 27 accelerates the reaction (addition up to 1 %); MC-Additiv ST thixotropes the reactive resin (addition of approx. 4-7 %). All added quantities refer to component A and are only to be mixed into component A.

Machine Cleaning

Within the pot life of the resin, those parts of the pump containing the mixed resin can be flushed with MC-Verdünnung PU(MC-Thinner PU). In the case an interval longer than the resin's pot life the injection-pump should be thoroughly flushed with MC-Verdünnung PU (MC-Thinner PU).

Partially or completely cured material can only be removed mechanically.

At the end of work additional maintenance of the pump with oil is necessary.





Technical Data for MC-Ballastbond 70

Characteristic	Unit	Value*	Comments
Mixing ratio	p.b.v.	1 : 1	component A : component B
Density	kg/dm ³	approx. 1.13	DIN 53 479
Viscosity	mPa·s	approx. 200 ± 50	DIN 53 018
Compressive strength	MPa	approx. 40	DIN EN 196 T1
Slant shear strength	MPa	approx. 13.3	BS 6319, part 4
Flexural tensile strength	MPa	approx. 3.5	DIN EN 196 T1
Shore-A-hardness		approx. 90	ISO 868
Application time	minutes	10	
Application conditions	°C	+ 6 - + 45 + 6 - + 30	temperature of structural part and air temperature of material
	%	≤ 85	relative humidity
	K	3	abave dew point

* All technical values relate to 20 °C and 50 % relative humidity

Product characteristics for MC-Ballastbond 70

Colour	Component A: black Component B: brownish Mixture: anthracite
Cleaning agent	MC-Verdünnung PU (MC-Thinner PU) Water or water-based cleaners must not be used under any circumstances
Delivery	MC-Ballastbond 70 in canisters of 20 l for each component MC-KAT 27 in a box of three 1 l PE bottles MC-Additiv ST in a box of three 1 l PE bottles
Storage	Can be stored in original sealed packages at temperatures between + 5 °C and + 25 °C in dry conditions for at least 1 year. The same requirements are valid for transport.
Disposal	Packs must be emptied completely.

Safety Advice

Please take notice of the safety information and advice given on the packaging labels and safety information sheets. GISCODE: PU 40

Note: The information on this data sheet is based on our experiences and correct to the best of our knowledge. It is, however, not binding. It has to be adjusted to the individual structure, application purpose and especially to local conditions. Our data refers to the accepted engineering rules, which have to be observed during application. This provided we are liable for the correctness of this data within the scope of our terms and conditions of sale-delivery-and-service. Recommendations of our employees which differ from the data contained in our information sheets are only binding if given in written form. The accepted engineering rules must be observed at all times.

Edition 02/10. Some technical changes have been made to this print medium. Older editions are invalid and may not be used anymore. If a technically revised new edition is issued, this edition becomes invalid.