

MC-Ballastbond 70

Rock adhesive bonding of ballast, split and loose rock



PRODUCT PROPERTIES

- Low-viscosity polyurethane-based duromer resin
- Short reaction time
- Durable rigid bonding
- Fulfills requirements of the DIBt leaflet "Evaluation and effects of construction products on soil and groundwater" (status 11/2000)
- Corresponds to fire class A2fl-s1 according to DIN EN 13501-1:2019-05
- REACH exposure: water contact permanent, processing and application
- Environmental Product Declaration EPD

AREAS OF APPLICATION

- Reinforcement of ballast bearing layers by glueing the rock to impair its drainage capacity
- Improving the positional stability of highly loaded ballast along railway tracks, e.g. B. at lane crossings, in curves, at shunts
- Protection of ballast shoulders during conversion work and track renewals
- Bonding and sealing of gravel and split surfaces to increase the load capacity, for color design or against plant growth

APPLICATION ADVICE

Preparatory measures: Prior application, an investigation of the gravel surface must be carried out according to the state of the art and the rules of technology and a concept must be planned. The ballast to be bonded should be as dry, clean and free of any separating components as possible. A trial application is recommended.

Mixing the components: Components A and B of MC-Ballastbond 70 are mixed as they pass through the mixing head of the injection pump (mixing distance ≥ 20 cm inline static mixer).

The pot life/working time of the mixed resin depends on the prevailing ambient temperature. The working time can be extended by cooling the resin components and the resin mixture.

Application: The application to the gravel surface is carried out with a 2-component pump with sufficient delivery capacity. The resin mixture is sprayed evenly onto the rock surface with a lance. The spray jet must be a closed fan. The distance to the gravel surface should not be more than 20 cm. Avoid aerosols. The MC-I 710, for example, can be used for application. The spray nozzle (nozzle opening) must be adapted to the construction site conditions (resin temperature, spray width). The amount applied per m² is based on the specified penetration depth and must be determined on site. As a guide, 1-2 liters of adhesive per m² of gravel for a penetration depth of 10 cm apply.

If the surface temperature is < 5 °C / > 40 °C, if it is raining or if the gravel surface is wet, application must be stopped. The ingress of moisture to the resin components in opened containers must be effectively prevented (e.g. using a drying agent).

Ensure compliance with the information given in the specifications and the Safety Data Sheets.

Reaction acceleration: The reaction time of the resin can be shortened by adding MC-KAT 27 to 1 % in component A before mixing with component.

Equipment cleaning: Within the working time, all solvent-resistant equipment can be cleaned with MC-Cleaner eco or thinner product MC-Verdünnung PU. Material that has reacted or set will need to be removed mechanically.

TECHNICAL VALUES & PRODUCT CHARACTERISTICS

Characteristic	Unit	Value	Comments
Density	kg/dm ³	1.13	EN ISO 2811-1
Mixing ratio	parts by volume	1 : 1	comp. A : comp. B
Flexural strength	N/mm ²	approx. 3.5	EN 196-1
Viscosity	mPa · s	approx. 200	EN ISO 3219 ±50
Glass transition temperature	°C	60.4	
Working time	minutes	approx. 10	ASTM D7487
Application conditions	°C	5 - 40	temperature of rock surface
		5 - 40	material temperature
	%	≤ 85	rel. humidity
	K	3	
Slant shear strength	N/mm ²	approx. 13.3	BS 6319-4
Compressive strength	N/mm ²	approx. 40	EN ISO 604
Shore A hardness		90	ISO 868

All technical values are laboratory results determined at 21°C ±2°C and 50% relative humidity.

Equipment cleaning agent	MC-Verdünnung PU (thinner), under no circumstances should water or aqueous cleaning agents be used		
Delivery form	MC-Ballastbond 70: 1000 l container, 20 l canister per component MC-KAT 27: Bottle of 400 ml with 5 pieces in a box		
Colour	brownish		
Storage	Can be stored in original sealed packages at temperatures between 10°C and 35°C in dry conditions for at least 18 months.		
Packaging disposal	Make sure single-use containers are completely empty.		

Safety instructions

Please note the safety information and advice given on the packaging labels and safety data sheets. GISCODE : PU40

Note: The information contained in this data sheet is based on our experience and is correct to the best of our knowledge. It is, however, not binding. It will need to be adapted to the requirements of the individual structure, to the specific application and to non-standard local conditions. Application-specific conditions must be checked in advance by the planning engineer/specifier and, where different from the standard conditions indicated, will require individual approval. Technical advice provided by MC's specialist consultants does not replace the need for a planning review by the client or its agents in respect of the history of the building or structure. Subject to this prerequisite, we are liable for the correctness of this information within the framework of our terms and conditions of sale and delivery. Recommendations of our employees deviating from the information given in our data sheets are only binding for us if they are confirmed in writing. In all cases, the generally accepted rules and practices reflecting the current state of the art must be observed. The information given in this technical data sheet is valid for the product supplied by the country company listed in the footer. It should be noted that data in other countries may differ. The product data sheets valid for the relevant foreign country must be observed. The latest technical data sheet shall apply to the exclusion of previous, duly superseded versions; the date of issue in the footer must be observed. The latest version is available from us on request or may be downloaded from our website. [2300018137]