

MM1018 P - putty

Product #1436

Product description

MM1018 P is a metal polymer for the 100% form- and force-locking gap compensation for tolerance inaccuracies and unevenness between metal elements, head plates, bridge bearings, crane and rail guides as well as steel components. For gaps of > 10 mm, it is recommended to insert steel shim plates in order to reduce the gap width to less than 10 mm.

Characteristics

- Very high compressive strength
- Corrosion and weather resistant
- Injection for almost any gap situation, no casting
- General building authority approval
- Seawater resistant

Chemical resistance

- Oil
- Petrol
- Coolant

Package sizes

0.5 kg
1.0 kg
1.5 kg
4.5 kg
Special sizes on request

MM1018 P is supplied in ready-to-use package sizes. The product consists of two components. Both components must be thoroughly mixed with each other. To avoid mixing errors, a portioning of the components into smaller quantities is expressly discouraged.

Storage / shelf life

Store in the original unopened container in a dry, cool and frost-free location (5°C - + 20°C). Shelf life 2 years. Protect from direct sunlight. Higher temperatures reduce the shelf life.

Technical specifications

Technical data	Test method	Symbols	Value 1
Application (gap size)	-	d	0 – 140 mm
	-	d	0-10 mm acc abZ
Friction	-	μ	>0.5
E-modulus [N/mm²]	DIN EN 13412:2006	E	10,000
Compressive strength [N/mm²]	DIN EN 12190:1998	f _c	110
Shrinkage [mm/m]	DIN EN 12617-4:2002	ε	0.84
Viscosity [mPas]	DIN EN ISO 3219:1994	ν	600,000
Creep coefficient	DIN EN ISO 13584:2003-11	Φ _{182,7d}	2.1
Thermal Expansion Coefficient [1/K]	-	α _T (-20°C - 60°C)	2.5E - 05
Density [g/cm³]	-	-	2.66
Pot life [min]	DIN EN ISO 9514	T _{15,k}	20 ± 20%
Shore D hardness	DIN ES ISO 868	-	89

Consumption calculation

The base area (A in cm²) and the mean gap dimension (d in cm) are required as a basis for calculation of the material consumption.

In this calculation, a material surplus of 20% is taken into account to compensate for tolerances as well as application-oriented additional consumption.

$$M \text{ (in g)} = A \text{ cm}^2 * d \text{ cm} * 1,2 * 2,6 \text{ g/cm}^3$$

Indication: 1m² contact surface with 1mm gap

$$M = 10.000 \text{ cm}^2 * 0,1 \text{ cm} * 1,2 * 2,6 \text{ g/cm}^3 = 3120 \text{ g} = 3,12 \text{ kg}$$

Important instructions

Please refer to the safety data sheet.

Technical data sheet

Processing parameters

The processing time (pot life) of the material starts as soon as the two components A and B are combined. The pot life and hardening time are dependent on the material quantity (volume) and the temperature. The following table provides pot life values for a 1 kg pack relevant to practical applications:

Temperature [°C]	Pot life [Min]
10	60
20	25
30	10

Measured with 1 kg of product in the original container

For larger containers, the pot life may be reduced due to a higher reaction temperature. The compressive strength depends on the temperature, the curing time and the material dimension. The following table gives approximate values for a gap of 10 mm.

Temperature [°C]	Compressive strength [N/mm²]	Time until compressive strength is attained
5	-	24 hours
5	106	7 days
21	88	24 hours
21	110	7 days
30	90	24 hours
30	122	7 days

Compressive strength relative to the ambient temperature

The material curing can be accelerated by heating. The maximum permissible temperature for accelerated curing is 65°C. The required curing temperature is 5°C. At lower temperatures it is recommended to preheat the components.

Work preparation

Contact surfaces that are to be coated with MM1018 P, must be cleaned of dirt and loose particles, if possible using deoiled compressed air. The Diamant Cleaner #1417 is recommended. The cleaner must be applied to a lint-free cloth with which the contact surface is then cleaned. Existing screws must be protected by PU screw protection to avoid later sticking of the threads with MM1018 P. If the contact surfaces have to be separated again at a later point in time, it is necessary to use a separator in advance. It is recommended to use Diamant separator #1354. The separator must be applied generously on the contact surface where adhesion is to be avoided.

For further information see the Technical Data Sheet separator.

Mixing process

For the mixing of MM1018 P, the entire package of component B is added to the container with component A. Mix thoroughly with a hand-held drill and the Diamant mixing propeller (# 0789) (max. 250 rpm for approx. 2 minutes). Scrape off material adhering to the wall of the container with a spatula and add to the mixture. Mix again thoroughly.

Application description

MM1018 P is applied to the contact surface in an X-shape. Examples of a square or rectangular contact surface are illustrated in Figures 1 and 2. It is important to note that the highest material lift is applied at the center of the contact surface (see the red line in Figure 1) so that the MM1018 P can be distributed paste-like, air bubble-free and over the entire surface when the contact surfaces are joined together. After joining the contact surfaces the MM1018 P will be distributed over the entire surface out to the edges. Excess material, which has been pressed out at the sides of the contact surfaces, should be removed before curing, if possible.

Technical data sheet

Instructions

- 1.) Clean with Diamant Cleaner
- 2.) Install screw protection
- 3.) If necessary apply Diamant separator
- 4.) Mix the material
- 5.) Apply the calculated amount of material
- 6.) Join contacts
- 7.) Remove excess material from the joints by using a spatula
- 8.) Curing of MM1018 P

Figure 1 and 2 show a typical applications for MM1018 P.
For design and application notes, please contact our technicians.

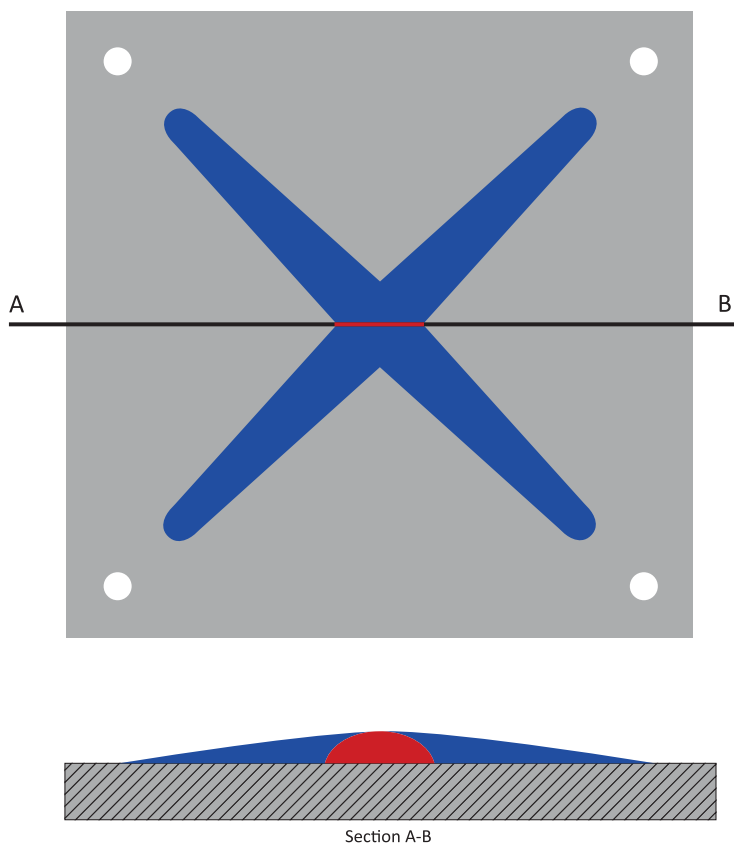


Figure 1

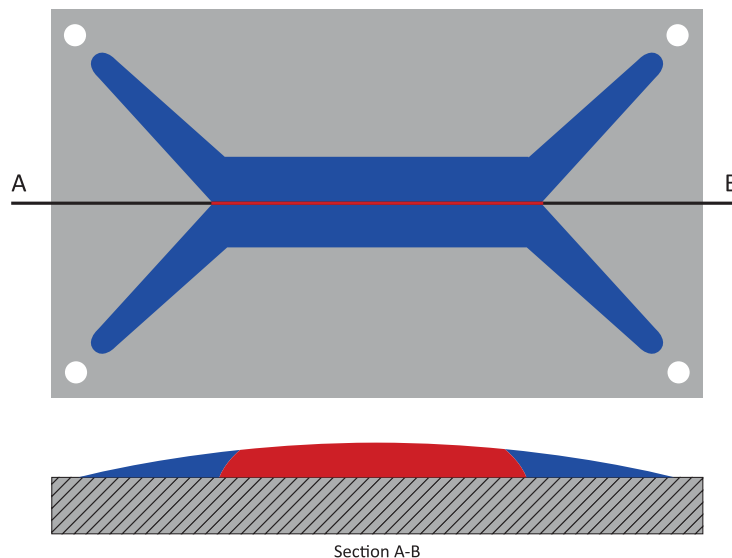


Figure 2

Disposal

Unused residual material from the cans can be disposed of normally (EAKV 170203) when mixed in the correct mixture ratio and completely cured. Unmixed material must be disposed as chemical waste (EAKV 080111). When the Diamant service team is booked, we dispose of the waste.

Qualification and Service

It is recommended that the application be carried out by trained DIAMANT technicians.

In order to guarantee optimum quality and faultfree application, we offer the following services:

- Product Training
- Construction site supervising
- Complete execution of works by our experienced application technicians

Further information can be found in the service data sheet

MM1018 P #1436

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The technical data cited here has been obtained under laboratory conditions and verified on the day of product manufacture through quality assurance processes. This information is subject to change, even without prior notice. The customer is responsible for verifying the current status of the data and should inquire with DIAMANT in this regard prior to ordering the material. Application, use and processing of the product takes place outside of our control and therefore exclusively under the responsibility of the purchaser. However, if a question of liability should arise, it shall be limited - in relation to all damages - to the value of the goods supplied by us and used by you. We guarantee the faultless quality of our products according to the provisions of our general terms and conditions of sales and deliveries. All technical specifications vary depending on loads and application conditions. We are able to issue substantiated application data in individual cases on request.