

## Technical Data Sheet

# VP 10-017

VP 10-017 is a viscoplastic polymer-ceramic with high impact and cavitation resistance

(Data Sheet Version 11.0 dd. 01.04.2009)



**MultiMetal**  
the MetalExistenceCompany™

PolymerMetal® • MultiMetal® • Ceramium® • MolyMetal® • Sealium® • XETEX®



Interested parties, please contact  
Authorized Exclusive Distributor in Indonesia, Singapore, Malaysia, Phillipine, Brunei  
**PT BAUMA ADHESIVE**

16th Floor, Wisma Metropolitan II, Kav. 29-31, Jalan Jendral Sudirman, Jakarta 12920, Indonesia

Phone : (62-21) 5711850 • Fax : (62-21) 5711861 • Website : [www.bauma.com/multimetal](http://www.bauma.com/multimetal) • E-mail : [baumaadhesive.sales@bauma.co.id](mailto:baumaadhesive.sales@bauma.co.id)

## Technical Data Sheet

# VP 10-017

### Product description

VP 10-017 is a viscoplastic polymer-ceramic with high impact and cavitation resistance. Due to its low viscosity, VP 10-017 can be processed either with brush or roll coating. This extremely smooth surface protection provides very high resistance against chemicals and has a high mechanical-physical load capacity. Also at plants stressed by wear and corrosion VP 10-017 finds its place of application. Furthermore it can be used at high atmospheric humidity.

VP 10-017 is a two-component-product. There are available two hardeners which are only different in their colour. These colours determine the end-colour of the polymer-ceramic.

### Technical data

|   |  |
|---|--|
| Application consistency:                  | liquid   |
| Colour after curing:                      | red in case of use of Hardener VP 10-017 red<br>grey in case of use of Hardener VP 10-017 grey |
| Viscosity at 20 °C                        | 2200 mPas  |
| Tensile strength:                         | 14 MPa (1890 psi)  |
| Impact strength:                          | 110 kJ/m <sup>2</sup>  |
| Breaking elongation:                      | 40 %   |
| Shore D hardness (DIN 53505):             | 72   |
| Specific passage resistance:              | 1 x 10 <sup>15</sup> Ωcm   |
| Passage resistance:                       | 1,8 x 10 <sup>11</sup> Ω   |
| Linear expansion coefficient at 25-45 °C: | 60 x 10 <sup>-6</sup> K  |
| Temperature resistance:                   | -150 °C to +100 °C   |
| Corrosion:                                | none   |
| Electrochemical corrosion (DIN 50900):    | none   |
| Density (mixed components):               | 1,4 g/cm <sup>3</sup>  |

### Chemical resistance

Already after curing a very good resistance is existent; highest resistance is effected after curing for approx. 6 days at approx. 21°C (alternatively for approx. 4 h at approx. 21°C followed by approx. 15 h at 35 - 40°C). The resistance to chemical stress like acids, caustic solutions, solvents, salts, gases, etc. depends on the concentration, temperature and duration of the exposure. Further details can be given on request.

### Surface preparation

- Immoderate quantities of salt accumulations in pitting may require wet blasting followed by dry blasting. Alternatively, dry blasting followed by high pressure fresh water cleaning, drying and finally, dry blasting again is possible.
- Mechanically rough up the surface by blasting (it is recommended for blasting to use angular grit material; surface finish approx. 75 µm; purity level approx. Sa 2½ according to Swedish standard SIS 055900 / ISO 8501-1), cutting, grinding...

- Clean by sweeping, blowing off or exhausting
- Thoroughly degrease with MM-Degreaser Z or MM-Degreaser C or at least a good grease dissolver (ethyl acetate, acetone,...); don't use alcohol, benzine or paint thinner

### Processing data

| Mixing ratio by:   | Weight | Volume        |
|--------------------|--------|---------------|
| VP 10-017          | 2      | 2             |
| Hardener VP 10-017 | 1      | 1             |
| Tool               |        | Measuring cup |

| Temperature | Pot life | Curing |
|-------------|----------|--------|
| 5 °C        | 120 min  | 8 days |
| 10 °C       | 60 min   | 3 days |
| 15 °C       | 50 min   | 2 days |
| 20 °C       | 40 min   | 24 h   |
| 30 °C       | 15 min   | 18 h   |

The processing shouldn't be carried out below + 5 °C.

### Application instruction

Before mixing the components the work piece should be prepared in accordance with the surface preparation. VP 10-017 and Hardener VP 10-017 should be stirred very well before taking them out of the tins. Always use clean tools for the removal of the components to avoid a reaction within the tins. We recommend mixing only the quantity of material which can be processed within the pot life.

The available measuring cups can be used to measure the required volume parts of the components. The measuring cup with the big filling amount is for the use of VP 10-017, the cup with the small filling amount is for Hardener VP 10-017. Measuring cups must be filled to marking.

Under consideration of the mixing ratio the components must be mixed very thoroughly.

VP 10-017 can be applied either with a brush or a roller. In one go a layer with a thickness of 0,3 mm can be applied - even at vertical surfaces or in over head situations.

All used tools should be cleaned straight after use.

### Multiple coating

|  |   |
|--|---|
| At work piece temperature approx. 15 - 17 °C | apply successive layer after approx. 5 h 30 min |
| approx. 20 - 22 °C                           | approx. 120 min                                 |
| approx. 28 - 30 °C                           | approx. 120 min                                 |

At a work piece temperature of 29 °C for example a successive layer should be applied approx. 120 min after mixing the material for the previous layer.

If the previous coating is already partly cured, it is obligatory to do a surface preparation again by roughening (preferably by careful light blasting) the previous coating before applying the next coating.

### Working security

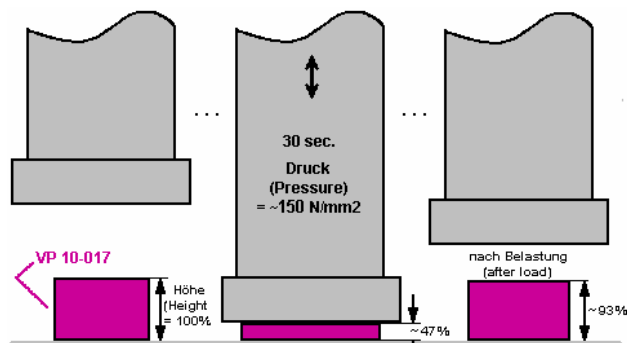
Avoid eye and skin contact. In case of skin contact, wash thoroughly with soap and water. In case of eye contact, rinse thoroughly with water.

### Storage

Both components (VP 10-017 + Hardener VP 10-017) can be stored for at least 5 years, if kept at temperatures below 25 °C. The materials do not lose their high quality performance after repeated openings of the containers.

### Test compressive set

Several test pieces of cured VP 10-017 with Hardener VP 10-017 have been pressed for 30 sec. at a pressure of approx. 150 MPa. The test pieces were compressed up to approx. 47% of their original height. After cessation of the pressure they regained approx. 93% of their original height.



This is an evidence for the extraordinary positive compressive set of the VP 10-017. In addition to that the samples of the VP 10-017 did not show any cracks even at that high impact and pressure load.

serve information purposes only. We recommend that appropriate tests are carried out prior to application in order to ensure that the products and methods fulfil the purpose desired by the user. In this procedure, the given data may serve as a basis. Application and processing of the products lie outside our possible control and are therefore the sole responsibility of the user.

## MultiMetal

the MetalExistenceCompany™

Data Sheet Version 11.0 dd. 01.04.2009  
© copyright MultiMetal

### Order information

| No. | Product                         | Unit  |
|-----|---------------------------------|-------|
| 705 | VP 10-017, liquid               | 800 g |
| 706 | Hardener VP 10-017 red, liquid  | 400 g |
| 707 | Hardener VP 10-017 grey, liquid | 400 g |

| Economicalness  | Used quantity | Area                        | Volume               |
|-----------------|---------------|-----------------------------|----------------------|
| VP 10-017       | 800 g         | 1200 g 0,857 m <sup>2</sup> | 857 cm <sup>3</sup>  |
| Hard. VP 10-017 | 400 g         |                             |                      |
| VP 10-017       | 666 g         | 1000 g 0,714 m <sup>2</sup> | 714 cm <sup>3</sup>  |
| Hard. VP 10-017 | 334 g         |                             |                      |
| VP 10-017       | 933 g         | 1400 g 1 m <sup>2</sup>     | 1000 cm <sup>3</sup> |
| Hard. VP 10-017 | 467 g         |                             |                      |

The areas were achieved at a layer thickness of 1 mm.

| No. | Accessories            | Unit    |
|-----|------------------------|---------|
| 10  | MM-Degreaser Z, liquid | 1000 ml |
| 11  | MM-Degreaser Z, liquid | 250 ml  |
| 24  | MM-Degreaser C, liquid | 250 ml  |

### Availability

Technical data sheets are generally available in German or English language. VP 10-017 is only produced in Germany and delivered worldwide within short time by MultiMetal. In addition to that our products are internationally available from many MultiMetal-partners. Ask for further products from MultiMetal.

### Note

The product information and instructions provided in this leaflet were prepared to the best of our knowledge and