

# MATERIAL DATA SHEET / MATERIAL-DATENBLATT

|                                                             |                  |                                                                                                                                                                                                                                                              |                                     |
|-------------------------------------------------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| <b>Material code</b><br><i>Material-Code</i>                |                  | <b>V86BE</b>                                                                                                                                                                                                                                                 | <b>old / alt</b><br><b>( V80B )</b> |
| <b>Additional codes</b><br><i>Weitere Codes</i>             |                  | <b>V8BX5, V8BW5, V8BM5, V8BV5</b>                                                                                                                                                                                                                            |                                     |
| <b>Material reference</b><br><i>Material-Referenz</i>       |                  |                                                                                                                                                                                                                                                              |                                     |
| <b>Basic polymer</b><br><i>Basis-Polymer</i>                |                  | <b>FKM</b>                                                                                                                                                                                                                                                   |                                     |
| <b>Color</b><br><i>Farbe</i>                                |                  | <b>brown / braun</b>                                                                                                                                                                                                                                         |                                     |
| <b>Hardness</b><br><i>Härte</i>                             | ASTM D 2240      | <b>80 +/- 5 Shore A</b>                                                                                                                                                                                                                                      |                                     |
|                                                             |                  | <b>IRHD</b>                                                                                                                                                                                                                                                  |                                     |
| <b>Density</b><br><i>Dichte</i>                             | ASTM D 1817      | <b>2.12 +/-0.03 g/cm<sup>3</sup></b>                                                                                                                                                                                                                         |                                     |
| <b>ASTM code</b><br><i>ASTM-Code</i>                        | D2000 / SAE J200 | <b>M 2 HK 810 A1-10 B38</b>                                                                                                                                                                                                                                  |                                     |
| <b>Temperature range</b><br><i>Temperatureinsatzbereich</i> |                  | <b>-18 °C to / bis 200 °C</b><br><br>Maximum and minimum working temperature have to be agreed according to specific application criteria. / <i>Maximale und minimale Betriebstemperatur müssen je nach spezifischen Einsatzkriterien abgestimmt werden.</i> |                                     |
| <b>Market segments</b><br><i>Marktbereiche</i>              |                  |                                                                                                                                                                                                                                                              |                                     |
| <b>Applications</b><br><i>Einsatzgebiete</i>                |                  |                                                                                                                                                                                                                                                              |                                     |

The indicated material properties at measured values are mean values determined with standard test bars. They may not be used as specification values and they are not directly comparable to material properties of finished parts. This is to emphasise that the customer himself is obliged to test the material with regard to its suitability in the application. This data sheet has not a change of service.

*Die unter Istwert angegebenen Kennwerte sind Mittelwerte und wurden an Normprobekörpern bestimmt. Sie dürfen nicht als Spezifikationswerte verwendet werden. Auch sind sie nicht mit am Fertigteil bestimmten Kennwerten vergleichbar. Der Abnehmer ist insbesondere nicht davon befreit, selbst die Eignung unserer Ware für den beabsichtigten Verwendungszweck zu prüfen. Das Datenblatt unterliegt nicht dem Änderungsdienst.*

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| <b>Properties</b><br><i>Eigenschaften</i>                    | <b>Norm</b><br><i>Norm</i> | <b>Required</b><br><i>Soll</i> | <b>Measured</b><br><i>Ist</i> | <b>Unit</b><br><i>Einheit</i> |
|--------------------------------------------------------------|----------------------------|--------------------------------|-------------------------------|-------------------------------|
| <b>Hardness</b><br><i>Härte</i>                              | ASTM D 2240                | 80 +/- 5                       | 78                            | Shore A                       |
|                                                              |                            |                                |                               | IRHD                          |
| <b>Density</b><br><i>Dichte</i>                              | ASTM D 1817                | 2.12 +/-0.03                   | 2.12                          | g/cm <sup>3</sup>             |
| <b>Modulus 100 %</b><br><i>Spannungswert 100 %</i>           | ASTM D 412                 |                                | 8.5                           | MPa                           |
| <b>Tensile strength</b><br><i>Zugfestigkeit</i>              |                            |                                | 12.4                          | MPa                           |
| <b>Elongation at break</b><br><i>Bruchdehnung</i>            |                            |                                | 210                           | %                             |
| <b>Compression set</b><br><i>Druckverformungsrest</i>        |                            |                                |                               |                               |
| 70 h / 200 °C                                                | ASTM D 395 2B              |                                | 31                            | %                             |
| h / °C                                                       |                            |                                |                               | %                             |
| <b>Low temperature behaviour</b><br><i>Kälteflexibilität</i> |                            |                                |                               |                               |
| <b>TR point</b><br><i>TR Punkt</i>                           | DIN 53 545                 |                                |                               | °C                            |
| <b>TR 10 point</b><br><i>TR 10 Punkt</i>                     | ASTM D 1329                |                                | -17                           | °C                            |
| <b>TG point</b><br><i>TG Punkt</i>                           |                            |                                |                               | °C                            |

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| <b>Resistance</b><br><i>Beständigkeit</i> |  | <b>Required</b><br><i>Soll</i> | <b>Measured</b><br><i>Ist</i> | <b>Unit</b><br><i>Einheit</i> |
|-------------------------------------------|--|--------------------------------|-------------------------------|-------------------------------|
|-------------------------------------------|--|--------------------------------|-------------------------------|-------------------------------|

|                                                                      |               |  |      |         |
|----------------------------------------------------------------------|---------------|--|------|---------|
| <b>Resistance in Air</b><br><i>Lagerung in Luft</i>                  | ASTM D 573    |  |      |         |
| <b>Test conditions</b><br><i>Prüfbedingungen</i>                     | 70 h / 250 °C |  |      |         |
| <b>Change of hardness</b><br><i>Härteänderung</i>                    |               |  | 3    | Shore A |
| <b>Tensile strength</b><br><i>Zugfestigkeit</i>                      |               |  | 11.2 | MPa     |
| <b>Change of tensile strength</b><br><i>Zugfestigkeitsänderung</i>   |               |  | -10  | %       |
| <b>Elongation at break</b><br><i>Bruchdehnung</i>                    |               |  | 189  | %       |
| <b>Change of elongation at break</b><br><i>Bruchdehnungsänderung</i> |               |  | -10  | %       |
| <b>Change of weight</b><br><i>Gewichtsänderung</i>                   |               |  |      | %       |
| <b>Change of volume</b><br><i>Volumenänderung</i>                    |               |  |      | %       |

|                                                                          |               |  |      |         |
|--------------------------------------------------------------------------|---------------|--|------|---------|
| <b>Resistance in ASTM-Oil No. 1</b><br><i>Lagerung in ASTM-Oel Nr. 1</i> | ASTM D 471    |  |      |         |
| <b>Test conditions</b><br><i>Prüfbedingungen</i>                         | 70 h / 200 °C |  |      |         |
| <b>Change of hardness</b><br><i>Härteänderung</i>                        |               |  | 0    | Shore A |
| <b>Tensile strength</b><br><i>Zugfestigkeit</i>                          |               |  | 12.8 | MPa     |
| <b>Change of tensile strength</b><br><i>Zugfestigkeitsänderung</i>       |               |  | 3    | %       |
| <b>Elongation at break</b><br><i>Bruchdehnung</i>                        |               |  | 218  | %       |
| <b>Change of elongation at break</b><br><i>Bruchdehnungsänderung</i>     |               |  | 4    | %       |
| <b>Change of weight</b><br><i>Gewichtsänderung</i>                       |               |  |      | %       |
| <b>Change of volume</b><br><i>Volumenänderung</i>                        |               |  | 1    | %       |

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| <b>Resistance</b><br><i>Beständigkeit</i>                                |               | <b>Required</b><br><i>Soll</i> | <b>Measured</b><br><i>Ist</i> | <b>Unit</b><br><i>Einheit</i> |
|--------------------------------------------------------------------------|---------------|--------------------------------|-------------------------------|-------------------------------|
| <b>Resistance in ASTM-Oil No. 3</b><br><i>Lagerung in ASTM-Oel Nr. 3</i> | ASTM D 471    |                                |                               |                               |
| <b>Test conditions</b><br><i>Prüfbedingungen</i>                         | 70 h / 200 °C |                                |                               |                               |
| <b>Change of hardness</b><br><i>Härteänderung</i>                        |               |                                | 0                             | Shore A                       |
| <b>Tensile strength</b><br><i>Zugfestigkeit</i>                          |               |                                | 11.9                          | MPa                           |
| <b>Change of tensile strength</b><br><i>Zugfestigkeitsänderung</i>       |               |                                | -4                            | %                             |
| <b>Elongation at break</b><br><i>Bruchdehnung</i>                        |               |                                | 216                           | %                             |
| <b>Change of elongation at break</b><br><i>Bruchdehnungsänderung</i>     |               |                                | 3                             | %                             |
| <b>Change of weight</b><br><i>Gewichtsänderung</i>                       |               |                                |                               | %                             |
| <b>Change of volume</b><br><i>Volumenänderung</i>                        |               |                                | 2                             | %                             |

Additional compound information about approvals, resistance tests etc. are available on request.  
Weitere Werkstoffinformationen über Freigaben, Beständigkeitsuntersuchungen usw. erhalten Sie auf Anfrage.