

## Technical Datasheet

### WEVOPUR 71 / 40 M

Two-component encapsulating system based on polyurethane with very low viscosity.  
The resin component is formulated with non-abrasive mineral fillers.

The cured polymer exhibits tough properties. The product processes a high dielectric strength.

Temperature range of use: -40°C to +130°C .

The product can be used in applications specified down to -50°C.

The casting resin is used with WEVONAT 300 M

Applications: Encapsulation of electrical components for medium and high voltage applications.

#### Product Specification:

|                          |                                                                                                             |                       |                 |       |       |
|--------------------------|-------------------------------------------------------------------------------------------------------------|-----------------------|-----------------|-------|-------|
| <u>Mixing ratio:</u>     | 100                                                                                                         | parts by weight       | WEVOPUR 71/40 M |       |       |
|                          | 35                                                                                                          | parts by weight       | WEVONAT 300 M   |       |       |
| <u>Viscosity (22°C):</u> | WEVOPUR 71/40 M:                                                                                            | 2.300                 | –               | 3.500 | mPa·s |
|                          | WEVONAT 300 M:                                                                                              | 100                   | –               | 170   | mPa·s |
|                          | Mixture:                                                                                                    | 1.000                 |                 | 1.400 | mPa·s |
| <u>Density (22°C):</u>   | WEVOPUR 71/40 M:                                                                                            | 1,36                  | –               | 1,39  | g/cm³ |
|                          | WEVONAT 300 M:                                                                                              | 1,20                  | –               | 1,24  | g/cm³ |
| <u>Colour::</u>          | WEVOPUR 71/40 M:                                                                                            | black or as requested |                 |       |       |
|                          | WEVONAT 300 M:                                                                                              | brown                 |                 |       |       |
| <u>Pot life (60 g):</u>  | ca. 20 minutes                                                                                              | at room temperature   |                 |       |       |
| <u>Curing time:</u>      | 12 – 24 hours                                                                                               | at room temperature   |                 |       |       |
|                          | The curing time depends on the temperature, the pot life, the thickness of the layer and the casting volume |                       |                 |       |       |

It is possible to accelerate or decelerate the potlife and curing time as requested.

## **Physical Properties:**

(after curing 24 h/80°C)

|                                      |                       |
|--------------------------------------|-----------------------|
| <u>Shore-hardness D:</u>             | 80 - 85               |
| <u>Tensile strength:</u>             | 16 N/mm <sup>2</sup>  |
| <u>Elongation at break:</u>          | 53 %                  |
| <u>Modulus of elasticity:</u>        | 737 N/mm <sup>2</sup> |
| <u>Thermal conductivity:</u>         | 0,36 W/m·K            |
| <u>Glass transition temperature:</u> | 41 °C                 |
| <u>Coefficient of Expansion:</u>     | 90 ppm/K<br>194 ppm/K |
| <u>Thermal class:</u>                | B                     |
| <u>Shrinkage after curing:</u>       | -                     |
| <u>Water absorption:</u>             | -                     |
| <u>Flammability:</u>                 | HB                    |
| <u>Flexural strength:</u>            | -                     |

## **Electrical Properties:**

|                                                    |                       |
|----------------------------------------------------|-----------------------|
| <u>Dielectric strength:</u>                        | 39 kV/mm              |
| <u>Volume resistance:</u><br>23°C/50% r.h.         | 10 <sup>14</sup> Ω·cm |
| <u>Surface resistance:</u><br>23°C/50% r.h.        | 10 <sup>16</sup> Ω    |
| <u>Dielectric constant ε:</u><br>at 50 Hz, 23°C    | 3,8                   |
| at 1 KHz, 23°C                                     | -                     |
| at 1 MHz, 23°C                                     | -                     |
| <u>Dissipation factor tan δ:</u><br>at 50 Hz, 23°C | 0,02                  |
| at 1 KHz, 23°C                                     | -                     |
| at 1 MHz, 23°C                                     | -                     |
| <u>Comparative tracking index:</u>                 | CTI 600               |

## **Test specification:**

|                                                         |
|---------------------------------------------------------|
| In accordance with ISO 7619-1<br>(Pressing time 3 sec.) |
| ISO 527-2                                               |
| ISO 527-2                                               |
| ISO 527-2                                               |
| DIN 22007-2/2008                                        |
| TMA                                                     |
| < -10°C, TMA<br>> +5°C, TMA                             |
| DIN EN 60085                                            |
| after 30 days immersion                                 |
| UL94                                                    |
| DIN EN ISO 178                                          |

|                    |                                                                                                 |
|--------------------|-------------------------------------------------------------------------------------------------|
| <u>Packaging:</u>  | 10 kg and 30 kg-buckets, 250 kg drums                                                           |
| <u>Shelf life:</u> | in original closed cans or drums, dry storage between 15°C and 25°C, 6 months after production. |

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RoHS conform

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