

PUR-System R4GB

- Fast-Cast Polyurethane Resins System -



The PUR-System R4GB is an unfilled, low-viscosity combination of resin and hardener with short working time and fast curing.

Features & Benefits:

- excellent flow characteristics
- fast curing, short demoulding time
- cold-hardening, demouldable at room-temperature
- easy to use
- supports a high ratio of fillers and colour pastes and pigment (max. 3%)
- creation of detailed models even with low thickness
- dielectric resin for electrical embedding components
- ideal for objects >100g

Product Properties:

| | |
|---------------------------|--|
| Mixing ratios (by weight) | 100 parts resin : 100 parts hardener |
| Mixing ratios (by volume) | 100 parts resin : 90 parts hardener |
| Mixed viscosity | low viscous (details below) |
| Working time (pot life) | 3-4 minutes (100g at 20°C, layer thickness 30mm) |
| Demoldable | >30 minutes (100g at 20°C, layer thickness 30mm) |
| Electrically loadable | 1h (100g at 20°C, layer thickness 30mm) |
| Mechanically loadable | 3h (100g at 20°C, layer thickness 30mm) |
| Working temperature | 15-20 °C |

Product Specifications:

| | | | |
|--------------------|--------|-----|-----------|
| Viscosity A (25°C) | 50-100 | cps | PM.01.003 |
| Viscosity B (25°C) | 50-100 | cps | PM.01.003 |

Data of unreinforced resin:

| | | | |
|----------------------------------|-------|-------------------|------------|
| Density | ca. 1 | g/cm ³ | PM.01.002 |
| Hardness (Shore D) | 70 | | PM.01.009 |
| Bending strength | 52-57 | MPa | PM.01.005 |
| Tensile strength | 20-25 | MPa | PM.01.004 |
| Isolation opposition 2500V / 3mm | > 20 | GΩ | PM.01.019* |
| Colour (mixed) | beige | | |
| Heat resistance | 75 | °C | PM.01.008 |

Safety instructions:

The safety instructions are to be taken as being of greatest importance. Do not allow children to handle. Prevent inhalation of the fumes and contact with the bare skin. Wear approved protective gloves and goggles. If ingested do not eat, drink or smoke. During the hardening process, energy can be released in the form of heat, hence a cooling/heat exchanging should be provided in order to prevent hot spots. Only mix the components in the recommended proportions in accordance with the instructions.

Application Instructions:

We recommend tests be performed for trials and suitability for the particular type of application. The system should only be used in the optimum temperature conditions. The relative air humidity should not be above 70%.

In respect of the safety instructions the Silicone and hardener should be mixed in a suitable mixing vessel in accordance with characteristics given in the data sheet. Deviating from the mixing recommendations can lead to incomplete hardening and through that loss of performance.

Ensure that the edges are well mixed using a stirring stick or a propeller type mixer. Localized signs of hardening indicate insufficient stirring and mixing of the components. Mixing of larger amounts (more than 100g) and higher temperatures (higher than 20°C) reduces the pot life time.

After entire mixing of resin and hardener, it is possible to add dry filling agents.

Further it is possible to degas the system by vacuum at 30 – 50 mbar.

- Vacuum may increase the volume!

Note: If the temperature in the process go above 40°C then it is not possible to continue further, as the process will lead to a loss of certain characteristics and properties. Increases temperature can be reduced by pouring the mixture into flat painting trays.

Cleaning work tools:

Unhardened product remains can be removed from tools by means of acetone or Thinner XB. Tools should be given a good airing after being cleaned with these solvents, in order to prevent the solvent from being retained until the tool is used again in a process. Hardened remains can only be removed by departing.

Storage:

Threaded container tops should be kept free of material remains. Do not exchange tops/lids.

With optimal storage conditions, shelf-life should be beyond 6 months.

Deliverable quantities:

Plastic containers with safety fastening in different quantities.

- The delivered amounts always contain equal proportions of Silicone and hardener! -

Larger containers can be obtained upon request.

Disposal:

Do not dispose of through the sewerage system, on areas of open water, or in the soil. Non-hardened remains of the product should be disposed of as hazardous waste. The hardened product waste should be treated as building rubbish or household rubbish.

Further Information:

Further application information can be obtained from our internet site, by selecting product info on the homepage. Please do not hesitate to contact us by telephone if you have further queries.

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With the newest printing of this data sheet the previous version loose validity!