

### Nano-Seal 120GR

Revised: 11.09.2017

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#### General description:

Liquid ready-for-use impregnant which penetrates into micropores by capillary forces. Seals leaks reliably due to its permanently elastic character. Contents solvents.

#### Specific properties:

- Contains only polymers which are approved for food contact
- Fast curing at room temperature.
- Low viscosity
- Broad field of application.
- Very good adhesion on metal as well as on a variety of plastics.
- Permanently elastic.
- Good corrosion resistance.

#### Application areas:

As sealer in Additive Manufacturing (FDM, SLS, SLM).

#### Technical data at 20°C:

#### Thermal resistance:

Softening of the polymer at about 120°C; thermal decomposition of the polymers above 170°C.

#### Chemical resistance at 20°C:

|                 |     |                              |     |
|-----------------|-----|------------------------------|-----|
| Acetone         | 3   | Methylene chloride           | 4   |
| Ketones(gen.)   | 3   | Chlorin. hydrocarbons (gen.) | 3   |
| Gasoline        | 1-2 | Motor oil                    | 1-2 |
| Cooling liquids | 1-2 | Dil. Sodium hydroxide        | 1-2 |
| Esters (gen.)   | 2   | Dil. Hydrochloric acid       | 1-2 |
| Ethyl acetate   | 3   | Dil. Sulphuric acid          | 1-2 |

1: fully resistant    2: short immersion possible  
 3: resistant when immediately wiped off        4: not resistant

The list is not exhaustive. Please contact us for your specific requirements. We will advise you or will carry out testings in our laboratory.

#### Adhesion:

|                 |       |              |       |
|-----------------|-------|--------------|-------|
| Mild steel      | 2     | Cast iron    | 2     |
| Stainless steel | 2     | Aluminium    | 2 - 3 |
| Copper          | 1 - 2 | Polyethylene | 2     |

1: very good    2: good    3: medium    4: bad

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**Viscosity:**

Brookfield: ca. 10 - 15 mPas at 25°C

**Curing time:**

2 h at 25°C: light load

12 h at 25°C: full load

The data serve as a rough guide as the curing depends strongly on the size, the thickness and form of the walls to be impregnated.

**Delivery form:**

Colorless to pale yellow low viscous liquid

Size of the cans: 1, 5 and 200 L

**Shelf life:**

2 years (storage below 30°C and ideally without exposure to light). Make sure that the can is always tightly closed.

**Processing:**

The product is ready for use.

Typical application modes are brushing, spraying or dipping of the model. Vacuum or pressure is not necessary.

The resistance of the model to solvents has to be checked prior to the impregnation with Nano-Seal 120GR.

- Cleaning of the model (preferably acetone) and drying at room temperature.
- Repeated brushing wet-in-wet or dipping for 15 min. Temperature of the surface at least 3°C above dew point.
- Filling of closed cavities (for instance cooling circuits); i.e. sealing from inside is also possible.

**Safety:**

Make sure that there is good ventilation and avoid any source of ignition. Read safety data sheet prior to use.

The technical data mentioned in this technical data sheet have to be regarded as rough guidelines. They have been obtained in our laboratory under optimal conditions. For the suitability of the product for specific applications we do not take the responsibility and we deny any liability. We recommend to do trials under conditions which reflect the individual practical application prior to the use of the material for the real application.