



# Technical Data Sheet

## NM Gjutharts 785

Utg: 2018-06-12

Ers: 2018-07-13

Rev: 2020-08-18

### General Description

**NM Gjutharts 785** is a low viscosity casting resin, based on epoxy, for castings from 1 to 200 mm. The resin contains no BPA.

**NM Gjutharts 785** is UV-stable and does not turn yellow.

#### Selecting curing agent for castings

1 – 20 mm **NM Härdare 785 R**

3 – 30 mm **NM Härdare 785 S**

30 – 200 mm **NM Härdare 785 L**

### Processing Instructions

The mixture of components is very important, poor mixing may result in soft spots.

Mix thoroughly in a container, transfer the mixture into a new clean container and mix further. Dosage should always be made on a scale with sufficient accuracy or a well calibrated dosage system.

Potlife and exothermic heat are affected by surrounding temperature. Larger castings are not recommended in rooms with a temperature above +23°C. The system is self-degassing, but for advanced castings vacuum can be good to use.

For all castings, we recommend that some kind of cover / protection shall be put over the casting to prevent too much air blowing over the surface. This also to avoid objects in the casting that should not be there.

If further casting is to be done on top of the first casting, this can be done with **NM Hardener 785 L** after about 24 hours and for **NM Hardener 785 S** after about 8 hours.

When mixing pigments in the form of paste, liquid or as solid pigments into the casting resin, it is recommended that this is done well in advance of casting. This so that entrapped air by mixed in pigment can evaporate and the binder will wet the pigment.

With non-translucent pigments, additions are around 0.03 - 0.08% of dry pigment.

### Release Agents

In all cases, we recommend that you try out what works best as a release agent in your case. Normally, we do not recommend wax-based release agents.

Depending on the shape, film-forming release agents such as Marbocote 220 works. The release agent must be well dried / cured before casting.

### Curing

**NM Gjutharts 785** cures at room temperature.

With **NM Hardener 785 R**, the curing takes about 48 hours, with **NM Hardener 785 S** about 48 and with **NM Hardener 785 L** around 7 days at 20°C. The curing can be accelerated by curing at elevated temperature. Make sure all air is exhausted before doing this.

After the resin has gelled, and can be handled at room temperature, a post-cure for 24 hours is recommended. This is done by placing the object in an oven and slowly increasing the temperature from room temperature to 50°C with about + 5°C / 60 minutes.

### Post Work

All kind of work on a cured casting must be done on a well-matted and wiped surface of the casting.

**NM Gjutharts 785** can be machined by saw, milling or turning. The surfaces can then be polished. Polishing occurs with gradually decreasing grain size on the wet sandpaper.

**NM Gjutharts 785** contains no additives that can interfere with the surface. Therefore, a ground surface is a neutral substrate for further treatment with e.g. lacquer. However, we always recommend that you test on a smaller area first.

On surfaces where high wear is expected, it is recommended to coat the surface with a non-yellowing surface lacquer based on a polyurethane.

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## Typical Properties

<b>Resin:</b>	NM Gjutharts 785
<b>Hardener slow:</b>	NM Härdare 785 L
<b>Hardener medium:</b>	NM Härdare 785 S
<b>Hardener fast:</b>	NM Härdare 785 R

### Mixing ratio

Resin – Hardener 785 L	100 – 40 by weight
Resin – Hardener 785 S	100 – 32 by weight
Resin – Hardener 785 R	100 – 30 by weight

*Density:* Approx 1000 kg/m<sup>3</sup>

*Potlife 100g 20°C, R:* 30 minutes

*Potlife 100g 20°C, S:* 60 minutes

*Potlife 100g 20°C, L:* 300 minutes

*T<sub>g</sub>:* 50°C, after post-cure.

*Colour:* Clear

*Normal packing:*

- 5.0 kg + 2.0 kg (L)
- 5.0 kg + 1.6 kg (S)
- 5 kg + 1.5 kg (R)
- 1.0 kg + 0.4 kg (L)
- 1.0 kg + 0.32 kg (S)
- 1 kg + 0.3 kg (R)

*Cleaning solvent:* Ethanol / Acetone.

## Disclaimer

This product's technical specifications are developed by experience in field and laboratory by us. Fully cured will take place at seven days at +23°C and 50 % RF.

We reserve the right to change products as well as data. Current data sheets are available at our website and with us. We cannot assume responsibility for use in areas that we do not know. The user shall always evaluate products for their intended use and we guarantee only the material properties. For every product we offer reference objects separately.

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