

# Silastic® 3133 Base and Silastic® 81-F NW Curing agent

## FEATURES

- Outstanding release properties
- High flowability and long working time
- Low hardness
- High elasticity, for easy removal of complex replica parts
- Economic and easy to use

## General purpose silicone moldmaking rubber

### APPLICATIONS

- SILASTIC® 3133 is suited for the detailed reproduction of figurines, art objects and similar items. It is particularly recommended where no deep undercuts or complex shapes are present.

### TYPICAL PROPERTIES

Specification Writers: These values are not intended for use in preparing specifications. Please contact your local Dow Corning sales office or your Global Dow Corning Connection before writing specifications on this product.

Property	Unit	Value
<b>Base and Curing Agent mixture (100:5 by weight)</b>		
Mixed viscosity	mPa.s	20,000
Color		Beige
Working time of catalyzed mixture at 23°C (73.4°F)	minutes	30-45
Curing time	hours	6
<b>Cured, tested after 7 days at 23°C (73.4°F)</b>		
Hardness (Shore A)		16
Tensile strength	MPa	3.2
Elongation at break	%	534
Tear strength	kN/m	4.7
Relative density at 23°C (73.4°F)		1.15
Linear shrinkage	%	0.2-0.4

### DESCRIPTION

SILASTIC 3133 Moldmaking Rubber is a two-component material consisting of SILASTIC 3133 Base, which when mixed with SILASTIC 81-F NW Curing Agent, cures at room temperature by a condensation reaction. A range of materials can be cast into the cured silicone mold: plaster, polyurethane, polyester and other reactive resins are materials typically used.

### HOW TO USE

#### Substrate preparation

The surface of the original should be clean and free of loose material. If necessary, and in particular with porous substrates, use a suitable release agent such as petroleum jelly or soap solution.

## Mixing

Thoroughly stir SILASTIC 3133 Base before use, as filler separation may occur upon prolonged storage.

Weigh 100 parts of SILASTIC 3133 Base and 5 parts SILASTIC 81-F NW Curing Agent in a clean container. Mix together until the curing agent is completely dispersed in the base. Hand or mechanical mixing can be used, but do not allow the temperature to exceed 35°C (95°F). Mix suitably small quantities to ensure thorough mixing of the base and curing agent.

It is strongly recommended that entrapped air be removed in a vacuum chamber, allowing the mix to completely expand and then collapse. After a further 1-2 minutes under vacuum, the mix should be inspected and can be used if free of air bubbles. A volume increase of 3-5 times will occur on vacuum de-airing the mixture, so a suitably large container should be chosen.

Caution: prolonged vacuum will remove volatile components from the mix and may result in poor thick section cure and non-typical properties.

Note: If no vacuum de-airing equipment is available, air entrapment can be minimized by mixing a small quantity of base and curing agent, then using a brush, painting the original with a 1-2mm layer. Leave at room temperature until the surface is bubble free and the layer has begun to cure. Mix a further quantity of base and curing agent and proceed as follows to produce a final mold.

## Pouring the mixture and curing

Pour the mixed SILASTIC 3133 Base and SILASTIC 81-F NW Curing Agent as soon as possible onto the original, avoiding air entrapment. The catalyzed material will cure to a flexible rubber within 24 hours at room temperature. Then the mold can be removed. If the working temperature is significantly lower, the cure time will be longer. If the room temperature or humidity is very high, the working time of the catalyzed mixture will be reduced. The final mechanical properties of the mold will be reached within 7 days.

## ADDITIONAL INFORMATION

### Use at high temperatures

Some molds produced from condensation cure silicone rubbers can degrade when exposed to temperatures above 150°C (302°F) over a period of time or when totally confined in storage at high ambient temperatures. This can result in softening and loss of elastic properties. Please contact a Dow Corning distributor for further advice.

### Resistance to casting materials

The chemical resistance of fully cured SILASTIC 3133 is excellent, and similar to all condensation cure silicone elastomers. It should be noted however that ultimately, resins and other aggressive casting materials will attack silicone molds, changing physical properties, surface release and possibly mold dimensions. Molds should be checked periodically during long production runs.

### Note:

SILASTIC 3133 is an industrial product and must not be used in food molding, dental and human skin molding applications.

## HANDLING PRECAUTIONS

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE FROM YOUR LOCAL DOW CORNING SALES REPRESENTATIVE.

## USABLE LIFE AND STORAGE

When stored at or below 30°C (86°F) in the original unopened containers, SILASTIC 3133 Base and SILASTIC 81-F NW Curing Agent have a usable life of 9 months from the date of production.

## PACKAGING

SILASTIC 3133 Base is available in 5kg, 20kg and 200kg containers.

SILASTIC 81-F NW Curing Agent is available in 0.25kg, 1kg and 10kg containers.

## LIMITATIONS

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

## HEALTH AND ENVIRONMENTAL INFORMATION

To support Customers in their product safety needs, Dow Corning has an extensive Product Stewardship organization and a team of Product Safety and Regulatory Compliance (PS&RC) specialists available in each area.

For further information, please see our website, [www.dowcorning.com](http://www.dowcorning.com) or consult your local Dow Corning representative.

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