



# PRIMOPOLY

## Instructions for use

### Product description

Two-component polyurethane model die material for highly precise dental models. Complies with EN ISO 14233:2003.

### Composition

Hardener: Polyisocyanate based on diphenylmethane diisocyanate  
Base: Aliphatic polyether polyol, inorganic filler

### Areas of application

PRIMOPOLY is ideal for fabricating precision models for the whole range of precious, non-precious and pressable ceramics work and in particular for dimensionally stable and accurate reproduction of detail of shoulder and partial crown preparations in the oral cavity. It is also suitable for fabricating CAD/CAM models as well as models for large span bridges, superstructures and inlay, onlay, shoulder and partial crown preparations.

### Properties

PRIMOPOLY is fluid, so it is easy to pour (even with very intricate cavities). It produces precise detail and is dimensionally stable. It also guarantees optimum edge stability and abrasion resistance (virtually no abrasion). It also has high compressive, shear and impact strength and can be easily trimmed and sawn. When used correctly, there is no loss of structure caused by washing, steam cleaning, ultrasonic cleaning or fitting and removing restorations fabricated in a hard material.

### Impression materials

PRIMOPOLY is ideal for use with silicone impression materials. Silicone impressions only need to be cleaned with a steam cleaner and then blown dry with compressed air. When using polyether or polysulphide impression materials (e.g. Permadyne, Impregum), **polyether/polyurethane separator** should be applied to the impression material beforehand. Spray on the separator from a distance of approx. 20-30 cm thinly, uniformly and without forming any pools. Allow 3 minutes for air drying. Hydrocolloids and alginate impression materials are not suitable.

### Technical data

Colour: white (blue colouring paste included)  
Working time\*: 3-4 minutes  
Impression removal: after approx. 60 min  
Setting time / workable \*: after 2-3 h  
Shore D (24 h): 78  
Vickers hardness VH 0.2 (after 24 h)\*: 12  
Modulus of elasticity (complies with ISO 1567): approx. 2800 MPa  
Flexural strength (complies with ISO 1567): approx. 33 MPa  
Mixing ratio: see tables  
\*: at 20 – 23°C recorded in accordance with EN ISO 142 33:2003  
Approximately 20-25 ml material is required for a complete dental arch. **We recommend dispensing according to weight.**

Mixing ratio weight	
Base	Hardener
10 g	1.5 g
20 g	3 g
30 g	4.5 g
40 g	6 g

Mixing ratio volume	
Base	Hardener
5 ml	1 ml
10 ml	2 ml
20 ml	4 ml
25 ml	5 ml
30 ml	6 ml

### Pack contents

Set comprises:  
**PRIMOPOLY base:** 660 g (3 x 220 g) container, with an empty plastic bottle with lever cap  
**PRIMOPOLY hardener:** 100 g (1x) container, with an empty glass bottle with a spout  
**PRIMOPOLY blue colouring paste:** 8 g  
**Accessories:** 4 small wooden spatulas / 2 large wooden spatulas  
Mixing bowls (3 x 30 ml + 1 x 50 ml)



## Instructions for use

### Initial use:

- Base** Open one of the three base containers, mix the contents thoroughly and empty all of the material into the empty plastic bottle.
- Hardener** Important: Shake briefly before opening, then empty the complete contents into the empty glass bottle and close immediately. The hardener is very hygroscopic, so the bottle must be properly closed **immediately** after use.

### Step by step technique:

1. Mix the **base** material thoroughly with the wooden spatula before use until it forms a homogeneous liquid. If the material has not been used for a longer period (1-2 days), it can be easily mixed in an ultrasonic unit. (Caution: Ensure no water gets in)
2. Remove the required amount of **base** material and fill into a measuring beaker according to the table (g or ml). We recommend dispensing according to weight.
3. To fabricate a model with an blue colour, mix the colouring paste into the **base** at this stage. CAUTION: Mix in a maximum of 3% paste; see "**Important instructions**".
4. Dispense the correct amount (see table) of **hardener** into the glass beaker. Close the **hardener** bottle properly immediately after use.
5. After mixing for approx. 30 seconds, all the components should be thoroughly mixed with no visible streaking. Pour the model die material thinly into the cleaned (separated) and dried impression. The working time is approx. 3-4 minutes at 20-23°C.
6. To prevent air bubbles, the impression can be placed on a vibrator at a low setting when pouring and/or cured for approx. 10-15 minutes at approx. 2-4 bar in a dry pressure vessel after pouring.
7. The material is set after approx. 60 minutes and the impression can then be removed.
8. The model can be trimmed, ground and drilled after approx. 2-3 hours.
9. **PRIMOPOLY** is compatible with die spacer lacquers currently on the market and is resistant to separating agents.

## Important instructions

Avoid contact of the liquid components with moist or wet surfaces, as they are extremely sensitive to moisture. The product could be irreversibly damaged. Close the bottles immediately after use. Isopropanol or alcohol is suitable for cleaning the working utensils (glass beaker, etc.). Do not subject to unnecessary heat.

Note: The temperature of the material has a considerable effect on the working and setting times given. The material sets more quickly at higher temperatures and more slowly at lower temperatures.

**Colouring paste:** When mixed with more than 3% colouring paste by weight, there is a risk that the material will not attain the required hardness.

## Warning

The hardener contains diphenylmethane diisocyanate, isomers and homologues. Harmful to health if inhaled. Irritates the eyes, respiratory organs and skin. Possible sensitisation on contact with the skin. On contact with the eyes rinse with plenty of water and consult a doctor (if possible show the label). On contact with the skin, rinse immediately with plenty of water and soap.

## Storage

Store the material in a cool, dry place at 4-25°C.

## Shelf life

Do not use after the expiry date. Use opened original containers within three months. Any brown discoloration of the base liquid and/or white deposits at the base of the hardener (protective agent against moisture) do not impair the properties of the material. Shake or stir before use.

## Standard

**PRIMOPOLY** meets the requirements of DIN EN ISO 14233:2003 "Dentistry – Model Die Resins"

This product was developed for use in dentistry and should be used according to the instructions for use. The manufacturer does not accept liability for damage caused by its use for any other purpose. The user is also personally responsible for checking before use that the material is suitable and can be used for the intended purpose, particularly if this is not listed in the instructions for use.