



# SCANDIPLEX

## USER INFORMATION

## INTENDED USE

Embedding specimen for materialographic polishing.

This leaflet describes the product regarding its properties and processing requirements.

## SAFETY INSTRUCTIONS

Carefully follow the requirements stated in the Material Safety Data Sheet.

## MATERIAL

SCANDIPLEX is a cold setting epoxy resin. It consists of two liquid components:

- Resin SCANDIPLEX A
- Hardener SCANDIPLEX B

The polymerised block has a light yellow, transparent colour.

## PROPERTIES

SCANDIPLEX can be poured for 20 minutes after mixing the components. SCANDIPLEX is also very suitable for vacuum embedding, using the SCAN-DIA VACUUMSET-UNIVERSAL. At room temperature (21° C) the material will cure within 60 min.

Using SCANDIPLEX implies simple handling. Curing does not require pressure or heat. Cured SCANDIPLEX is reasonably hard and abrasion resistant. SCANDIPLEX can be ground and polished easily. Respecting the material properties SCANDIPLEX will give excellent bonding to the specimen.

SCANDIPLEX is resistant to acids and solvents. Being a duromer it can not be dissolved chemically.

In order to achieve especially hard surfaces and improved edge definition, the hardness adjustor AEQUIDUR can be added. AEQUIDUR is available in three levels of hardness: S – soft, M – middle and H – hard. Using AEQUIDUR, the hardness can be adjusted in the range between aluminium and carbide metal.

## PROCESSING

Good cleaning and degreasing, preferably with acetone, is necessary to ensure effective bonding.

Silicone rubber moulds are recommended for embedding. SCAN-DIA's SCANDIFORM moulds are particularly well suited for this purpose. Ensure that there is a 2 mm gap between the sample and the inside of the mould.

## MIXING

Mix 10 parts SCANDIPLEX A with 4 parts SCANDIPLEX B, no matter if mixing by weight or volume.

SCAN-DIA recommends using the SCAN-DIA MIXING CUP (part-no. 91192) for dosing and mixing.

## NOTE

Carefully observe the exact mixing ratio. If the hardener is under-dosed, the mixture can not cure.

## PROCEDURE

Pour first the resin then the hardener into the mixing cup. Stir with glass stirrer, until both components are thoroughly and evenly mixed (1 - 2 min).

Note: No streaks of the hardener SCANDIPLEX B may be visible in the mixture. Let the mixture rest for appr. 3 min, so that any entrapped air bubbles can rise to the surface.

Pour enough SCANDIPLEX into the mould to form a 2 – 3 mm thick layer at the bottom. Using a pair of pliers, insert the specimen into the mould, slightly pressing it down into the bottom layer. Ensure that no air bubbles are trapped beneath the specimen.

Now fill the mould completely with SCANDIPLEX, leaving a 1 mm gap at the top.

Caused by the chemical reaction, the temperature of the sample can reach 80 - 150° C while curing, depending on the size of the sample. The curing temperature can be reduced significantly, when the hardener SCANDIPLEX B is partially or totally substituted with VARIOPLEX. For further information, please refer to the SCAN-DIA leaflet on cold embedding.

## NOTE

Using SCANDIPLEX, the life-time of silicone rubber SCANDIFORM moulds can be as low as 20 embeddings. The life-time can be increased if SCANDIPLEX is poured into the moulds at the end of the pot-life (15 - 20 min)

To ensure maximum life-time, do not use SCANDIFORM moulds with changing embedding materials. Avoid using SCANDIFORM moulds that have been used with other embedding materials.

## GENERAL INFORMATION

SCANDIPLEX (resin and hardener) should be stored in a cool, dry environment. Shelf life is min. 1 year if stored properly (20° C and well closed containers).

## NOTE ON CLEANING THE TOOL (CUPS, STIRRERS, ETC.)

Clean all tools immediately after use by wiping them down with paper towels. The product can not be chemically removed once cured.

The statements made here are based on our present up-to-date knowledge.

If, despite having followed the above instructions, the results are not to your complete satisfaction, please do not hesitate to contact us, as SCAN-DIA is at your disposal for any further assistance or information you may require.

THESE PRODUCTS MIGHT BE INTERESTING FOR YOU

### VARIOPLEX

reduces the curing temperature of  
SCANDIPLEX



### VACUUMSET-UNIVERSAL

small device for mounting or impregnating  
porous samples in a vacuum



### SCANDIFORM

Silicon rubber embedding mould - circular



### EMBEDDING SET

useful accessoires for the cold mounting  
procedure



### AEQUIDUR

Hardness Equalizer



### SCANDICLIP

plastic CLIP for fixing wires, pins, etc.



Our entire product range can be found at  
[www.scan-dia.com](http://www.scan-dia.com)

