

**SC** SARZYNA  
CHEMICAL



**epidian<sup>®</sup>deco**

# EPOXY COMPOSITION FOR DECORATIVE WORKS

**EPIDIAN® DECO** epoxy system is a solvent-free low viscosity composition that creates transparent and highly aesthetic coating intended for manufacturing of decorative elements in furniture and interior design.

The system consists of 3 components: **EPIDIAN® DECO**, **HARDENER DECO** and **HARDENER DECO – K**.

The **DECO HARDENER** is used to work with thin layers and small elements, while **DECO – K** is designed for potting thicker layers and larger items.

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## APPLICATION

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- casting of fully transparent items
- sealing of small items in transparent resin
- creating furniture and decoration based on wood combined with transparent and coloured resin compositions
- filling „canyons” in decorative table tops
- coating wooden surfaces
- other artistic and decorative solutions

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## PROPERTIES

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- fully transparent finish
- enables smooth decorative surfaces
- can be easily pigmented
- possible to create layers up to 4 cm thick
- mechanical resistance
- chemical resistance
- water resistant
- easy to clean
- does not contain nonylphenol

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## DIRECTIONS FOR USE

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For curing the following proportions are used:

**Composition with HARDENER DECO**

EPIDIAN® DECO	100 parts by weight
HARDENER DECO	40 parts by weight

**Composition with HARDENER DECO-K:**

EPIDIAN® DECO	100 parts by weight
HARDENER DECO - K	30 parts by weight



## CURING

Air temperature and humidity when preparing, applying and hardening epoxy composition have a considerable influence on quality and properties of the coating.

The optimal operating air temperature is 20°C (at least 18°C) and relative humidity max. 60%. If the humidity is higher, the hardened surface may get muddy, pinholed or viscous. If the floor/surface temperature is reduced below the dew point when hardening, the look and quality of coating will be highly affected. These conditions entail emergence of condensate drops on the surface, which makes the finish less attractive.

Other essential and decisive factors are weighing out and mixing resin composition ingredients. It is important that relevant weight proportions are followed.

The mixing process must be based on two stages: after adding ingredient A to ingredient B, it is necessary to mix them with a low-speed drill (max. 400 rpm) for about 3 minutes. Next the mixture should be poured into a clean reservoir and mix again for about 3 minutes. Now the composition is ready and can be applied.

## SPECIFICATION

### EPIDIAN® DECO

PARAMETER	UNIT	VALUE
Epoxy number	[mol/100g]	0,480 – 0,515
Viscosity at 25°C	[mPas]	600 – 800
Density at 20°C	[g/cm <sup>3</sup> ]	1,12

### HARDENER DECO

PARAMETER	UNIT	VALUE
Amine number	[mg KOH/g]	350 – 400
Viscosity at 25°C	[mPas]	250 – 350
Density at 20°C	[g/cm <sup>3</sup> ]	1,00 – 1,02

### HARDENER DECO – K

PARAMETER	UNIT	VALUE
Amine number	[mg KOH/g]	450 – 490
Viscosity at 25°C	[mPas]	< 30
Density at 20°C	[g/cm <sup>3</sup> ]	0,935 – 0,950

## APPLICATION

### FLAT SURFACES EPIDIAN® DECO + HARDENER DECO

Prepare the composition based on the following proportions:

EPIDIAN® DECO	100 parts by weight
HARDENER DECO	40 parts by weight

It is necessary to prepare a mixture of max. 1kg once. Life time - 10 minutes.

**IMPORTANT:** In order to make sure the resin does not penetrate the material and to prevent air bubbles from escaping the wood uncontrollably, the material must be primed beforehand. For priming, use EPIDIAN® DECO with HARDENER DECO.

The surface must be filled after hardening of the base layer. The coating must be left for 16-24 hours at the temperature of 20°C. If the interval between subsequent layers exceeds 48 hours, it is necessary to tarnish, dedust and degrease the surface before applying another layer.

When hardening the surface, avoid dusting, drafts, moisture, and ventilating.

### THE CANYONS EPIDIAN® DECO + HARDENER DECO – K

To prepare the so-called canyons, the composition in the following proportions is required:

EPIDIAN® DECO	100 parts by weight
HARDENER DECO – K	30 parts by weight

**REMEMBER:** In order to prevent the wood from aeration, it must be primed beforehand. For priming, use EPIDIAN® DECO with HARDENER DECO.

Before you fill the canyon space, make sure the primer has hardened (is not sticky), level everything and seal at joints. After filling the canyon, vent the mass with an electric heat gun. Start venting shortly after filling the canyon and repeat the operation after about 10 minutes. The hardening lasts 48 hours at the temperature of 20°C. When hardening the filled surface, avoid dusting, drafts, moisture and ventilating as these factors will determine the end result.

## MATERIAL CONSUMPTION

Material consumption of EPIDIAN® DECO with HARDENER DECO in case of single application is about 1,0 – 1,1 kg/m<sup>2</sup>/1mm (layer should not exceed 0,5 cm at a time).

Material consumption of EPIDIAN® DECO with HARDENER DECO – K in case of single application is about 1,0 – 1,1 kg/m<sup>2</sup>/mm. It is advisable to make canyons of max. dimensions - 9cm x 4cm x 100cm.

## USAGE AND CARE

The composition achieves its full mechanical strength 7 days after hardening. In 14 days it reaches its full chemical resistance. The first washing is recommended not earlier than 14 days from manufacturing and hardening of the element/surface. To prevent quick damage of the surface, it is recommended to observe the following rules:

- Lift items when moving from one place to another - do not slide them on the surface.
- Remove spilled sugar, salt or other loose products immediately.
- Use trivets for hot dishes or warm drinks.
- Do not use chemical scrubbing agents to clean the surface.

## CHEMICAL RESISTANCE

Information on the chemical resistance is available upon customer request.

## SHELF LIFE

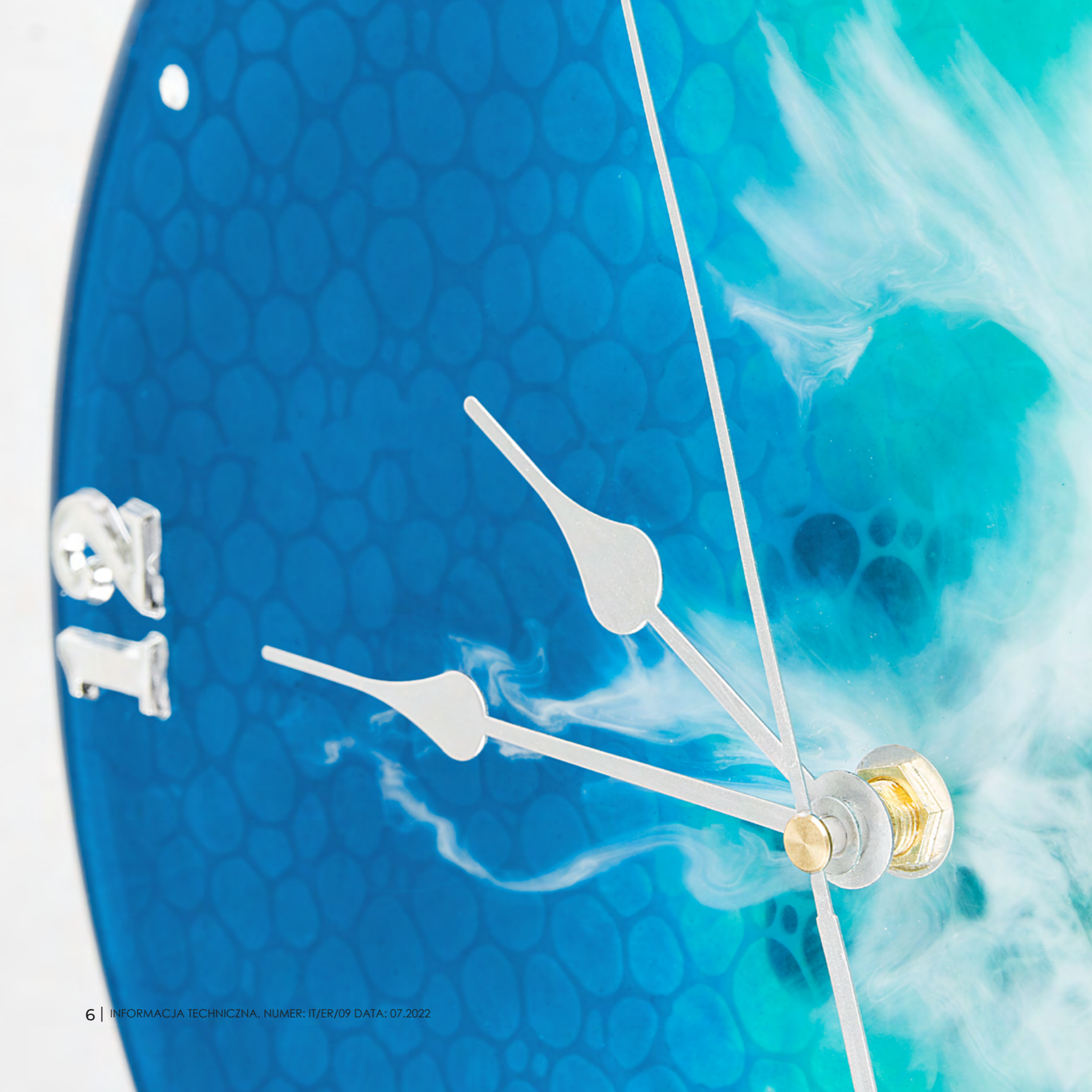
12 months from the manufacture date.

## OHS INFORMATION

Information on the safe handling of epoxy composition is available in „Instruction for the epoxy resins use“.

## CLEANING TOOLS

All tools used for making the epoxy coating shall be cleaned regularly with a solvent, e.g. acetone, preventing from curing the residues of the epoxy compositions on the tools.



## MECHANICAL PARAMETERS

EPIDIAN® DECO + HARDENER DECO

TESTED PARAMETER/ CURING CONDITIONS	7 days at room temp.	6h at 80°C
Flexural strength, MPa PN-EN ISO 178: 2006	67	73
Flexural modulus, MPa PN-EN ISO 178: 2006	2380	2480
Deflection, mm PN-EN ISO 178: 2006	6,5	7,1
Stress at break, MPa PN-EN ISO 527-1: 1998, PN-EN ISO 527-2: 1998	29	36
Tensile modulus, MPa PN-EN ISO 527-1: 1998, PN-EN ISO 527-2: 1998	2450	2490
Heat deflection temperature HDT, °C PN-EN ISO 75-1: 2006, PN-EN ISO 75-2: 2006	44	48
Compressive strength, MPa PN-EN ISO 604: 2006	64	64
Impact without notch, kJ/m <sup>2</sup> PN-EN ISO 179-1: 2004	66	69
Barcol hardness, °B ASTM-D 2583-07	5	16

## TABLE OF RESISTANCE TO SELECTED FOOD AND CLEANING PRODUCTS

EPIDIAN® DECO + HARDENER DECO

Selected food and cleaning products were applied to the finished surface, hardened for 14 day at room temperature, than removed with a water-moistened cloth after 4, 12 and 48 hours respectively. The influence on the color and gloss was assessed.

“+” no influence      “-” color change or matting of the surface

Food or cleaning product	After 4 hours	After 12 hours	After 48 hours
Mineral water	+	+	+
Pepsi®	+	+	+
Coffee	+	+	+
Tea	+	+	+
Raspberry juice	+	+	+
Milk	+	+	+
Vinegar 10%	-	-	-
Tomato sauce	+	+	+
Vegetable oil	+	+	+
Alcohol 95%	+	+	+
Beer	+	+	+
Window cleaner	+	+	+
Domestos	-	-	-
Cif	-	-	-
Soap	+	+	+
Pronto®	+	+	+
Dish soap	+	+	+

*Data and suggestions hereby contained are based on our own research and are believed to be reliable. However, we cannot take any responsibility for direct and indirect effects and losses resulted from the use of our products. The user should check the quality, safety and product characteristics before it is used.*

*NOTE: The information does not substitute Material Safety Data Sheet or Technical Specification which are the superior documents. The data contained in the Technical information shall not constitute the basis for any claim.*

## CONTACT US

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