

Epoxy-System E45GA

- Casting resin, semi-transparent -



The Epoxy-System E45GA is an unfilled, medium-viscous 2-components combination of resin and hardener with a working time (pot life) of approx. 45 minutes.

Usable for epoxy castings of medium thicknesses (up to approx. 20mm*)

Properties and field of application:

- semi-transparent, low shrink-casting with tacky-free surfaces
- well flowable (medium-viscosity)
- cold-hardening, demouldable at room-temperature
- highly fillable casting resin
- creates pressure-resistant and impact-resistant (tough) moulds / components with high strength

Industrial modelling / hobby modelling / boatbuilding:

- foundry patterns, mould plates, reproduction patterns
- building small moulds and castings with slightly yellowish colour
- Encapsulation resin of decorative elements
- levelling compound
- dielectric resin for electrical embeddings up to 48 Volts
- modifiable with fillers for the respective application

E45GA is free of nonylphenol and contains no active diluents!

Product Properties:

Colouring	without colour (resin), light yellow (hardener)		
Mixing ratios	100 parts resin : 60 parts hardener (by weight) 100 parts resin : 70 parts hardener (by volume)		
Mixed viscosity	medium viscous	(details below)	
Working time (pot life)	45 minutes	(at 20°C)	
Demouldable after*	< 12 h	(at 20°C)	
	< 6 h	(at 30°C)	
Full cure	7 days	(at 20°C)	
Working temperature	15-25 °C		

Raw material data:

Viscosity Resin (at 23°C)	8000	mPa * s	DIN 16945
Viscosity Hardener (at 23°C)	350	mPa * s	DIN 16945

Moulding properties -without reinforcing material:-

Density	1.1	g/cm ³	
Hardness (Shore D)	82		
Colour (mixed)	slightly yellowish		

Specifications after curing 7d at 20°C

* Depends on geometry and total amount of casting.

Safety instructions:

The safety instructions are to be taken from the respective containers or the safety data sheets. Do not allow children to handle. Prevent inhalation of fumes and contact with bare skin. Wear suitable protective gloves and safety goggles. Do not eat or smoke when using.

During the hardening process, energy can be released in the form of heat, hence a cooling/heat exchanging should be provided in order to prevent hot spots. Only mix the components in the recommended proportions in accordance with the instructions.

Application Instructions:

We recommend tests be performed for trials and suitability for the particular type of application. The system should only be used in the optimum temperature conditions. The relative air humidity should not be above 70%. In respect of the safety instructions the epoxy and hardener should be mixed in a suitable mixing vessel in accordance with characteristics given in the data sheet. Deviating from the mixing recommendations can lead to incomplete hardening and through that to a loss of performance.

Ensure that the edges are well mixed using a stirring stick or a propeller type mixer. Streaks indicate insufficient stirring and mixing of the components. Mixing of larger amounts (more than 100g) and higher temperatures (higher than 20°C) reduce the pot life.

After mixing resin and hardener, it is possible to add additives, dry filling agents or colour pigments.

Further it is possible to degas the system under vacuum at 30 – 50 mbar.

Attention: Vacuum can increase the volume!

Larger quantities (> 100g) and higher temperatures (> 20 ° C) shorten the processing time. Mixtures which rise above 40°C in the mixing vessel should not be used any further since processing is likewise associated with property losses. Increases in temperature can be reduced by pouring the mixture into flat painting trays.

Cleaning of work tools:

Unhardened product remains can be removed from tools by means of acetone or Thinner XB. Tools should be given a good airing after being cleaned with these solvents, in order to prevent the solvent from being retained until the tool is used again. Hardened remains can only be removed by mechanical means, e.g. by sanding.

Storage:

Threaded container tops should be kept free of material remains. Do not exchange tops/lids. Close opened containers tightly. Store in a cool and dry place. With optimal storage conditions, shelf-life should be beyond 12 months.

Deliverable quantities:

Plastic containers with safety fastening in different quantities. Larger containers (e.g. barrels) can be obtained upon request.

Disposal:

Do not allow to enter drains, waterways or soil. Uncured product residues are hazardous waste. Cured material is construction site waste / household waste.

Further Information:

Further information can be obtained by selecting *Product Info* on our homepage. Please do not hesitate to contact us if you have further queries.

Information presented herein has been compiled from sources considered to be dependable and is accurate and reliable to the best of our knowledge and belief but is not guaranteed to be so. It is the user's responsibility to determine for himself the suitability of any material for a specific purpose and to adopt such safety precautions as may be necessary. We make no warranty as to the results to be obtained in using any material and, since conditions of use are not under our control, we must necessarily disclaim all liability with respect to the use of any material supplied by us. We recommend tests be performed for trials and suitability for the particular type of application.

With the newest printing of this data sheet the previous version loose validity!