

Epoxy Resin HP-E30FB

- Mould Covering Resin -



The Epoxy Resin System HP-E30FB is an aluminium-filled, highly viscous combination of resin and hardener with high hardness and working time (pot life) of approx. 30 minutes.

Features & Benefits:

- high-quality mould covering resin
- Non-drip, without run-off on vertical surfaces -high thixotropic, deep black or blue grey coloured
- Vacuum degassed
- User friendly mixing ratios (100:10)
- For abrasion and breaking resistant surfaces with good thermal conductivity.
- Innovative formulation, free of DETA¹ with high styrene resistance.
- For following layers wet-in-wet. Another option is to work with a dry-coupling layer.
– see application instructions on the back page

Product Properties:

Colouring	deep black or blue grey	
Mix Ratio	100 parts resin: 10 parts hardener (by weight) 100 parts resin: 10 parts hardener (by volume)	
Mixed Viscosity	high viscous	(details table below)
Working Time (pot life)	30 minutes	(at 20°C or 68°F)
Demouldable after	24 h	(at 20°C or 68°F)
Full Cure	7 days	(at 20°C or 68°F)
Temperature stability	115 °C	(or 239°F)
Working Temperature POSSIBLE	15 - 25 °C	(64 – 77°F)
Working Temperature OPTIMUM	20 - 25 °C	(68 – 77°F)

Product Specifications:

Viscosity Resin	80000	cps	HP.01.003
Viscosity Hardener	200	cps	HP.01.003

Data of Unreinforced Resin:

Tensile strength	50	MPa	HP.01.004
Hardness shore D	85		HP.01.009
Density	1,2	g/cm ³	HP.01.002
Colour	Deep black	Blue grey	

Specifications after curing * *recommended tempering (post-curing): 15h/60°C and 6h/80°C

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!

Safety Instructions:

The safety instructions are to be taken as being of greatest importance. Do not allow children to handle. Prevent inhalation of the fumes and contact with the bare skin. Wear approved protective gloves and goggles. If ingested do not eat, drink or smoke. 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 loss of performance.

Ensure that the edges are well mixed using a stirring stick or a propeller type mixer. Localized signs of hardening indicate insufficient stirring and mixing of the components. Mixing of larger amounts (more than 100g) and higher temperatures (higher than 20°C) reduces the pot life time. Notably, if the temperature in the process goes above 40°C then it is not possible to continue further, as the process will lead to a loss of certain characteristics and properties. Temperature increases can be reduced by pouring the mixture into flat painting trays.

By the insertion of material layers these will be cut after the process and prepared accordingly with the separating agent provided, negative or positive forms rendered. After spreading the epoxy mixture over surface, the saturation and de-aeration with approved equipment (de-aeration roller, referred to "bubble buster" or "degasser roller"). Apply release agent (for instructions see corresponding data sheet). When the release agent is dried, bring on the mixed moulding resin of about 0.3 – 2mm. Use a brush or a putty knife. After gelling it is possible to bring on the next layer.

¹DETA = Diethylentriamine. Component in simple formulations. Even minor variations (resin: hardener ratio, air humidity,...) may cause to "greasy", hygroscopic surfaces.

Styrene resistance:

After tempering / post-curing (15h/60° and 6h/80°C) there is no significant loading in styrene. Measuring was in pure styrene for 168h at 20°C.

Cleaning 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 in a process.

Hardened remains can only be removed by mechanical means such as grinding tools. After tempering / post-curing, mould surfaces can be cleaned with thinner XB or acetone.

Storage:

Threaded container tops should be kept free of material remains. Do not exchange tops/lids. With optimal storage conditions, shelf-life should be beyond 12 months.

Deliverable Quantities:

Plastic containers with safety fastening in the quantities 1.1, 2.75, 5.5, 11 and 33 kg. The delivered amounts always contain equal proportions of epoxy and hardener. Larger containers can be obtained upon request.

Disposal:

Do not dispose of through the sewerage system, on areas of open water, or in the soil. Non-hardened remains of the product should be disposed of as hazardous waste. The hardened product waste should be treated as building rubbish or household rubbish.

Further Information:

Further application information can be obtained from our Internet site, by selecting Product Info on the homepage. Please do not hesitate to contact us by telephone if you have further queries.