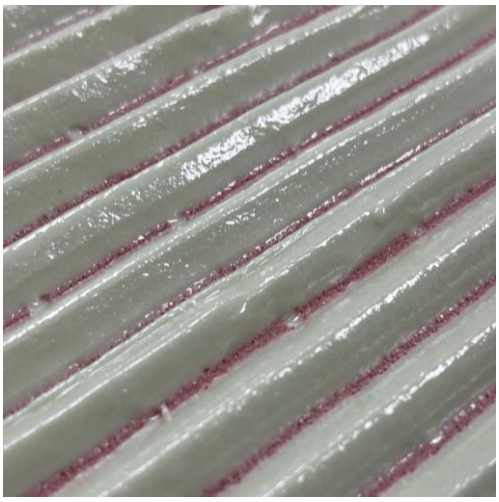
Gurit EPOXY

PRODUCT DATASHEET

Gurit



SPABOND™ 568

EPOXY CORE BONDING PASTE

Spabond 568 is a low density adhesive, with a simple 2:1 by volume mix ratio which is designed for bonding a wide range of core materials. The product is filled and can be applied in thicknesses of up to 6mm at 20°C on vertical surfaces without the risk of drainage.

Resin and hardener are both color coded to ensure consistency of the mix. The resin is light green and the hardener pale brown leading to a neutral grey color when fully mixed.

With the fillers used in its formulation, Spabond 568 is easy to sand and can be used for strip planking with wood or foam strips.

- Low cured density (0.68 g/cm^3) core bonding paste
- Long working time for large structures
- Recommended for use with Gurit Corecell, Kerdyn PET and PVC Core materials
- Suitable for all applications where lightweight core is used
- DNV approved
- Mix ratio by volume 2:1

DNV

INSTRUCTIONS FOR USE

APPLICATION

The product is optimized for use at 15 - 25°C. At lower temperatures the components thicken and may eventually become unworkable. To ensure accurate mixing and good workability pre-warm the resin & hardener as well as the surfaces to be bonded before use. Maximum relative humidity for use is 70%.

SURFACE PREPARATION - Structural foam

Before using the product ensure that surfaces to be bonded are clean, dry and dust-free. If the core material has been stored to the manufactures recommendations structural cores should be suitable for use as supplied. But if they have been contaminated with dust this should be removed with a vacuum cleaner with a clean soft brush attachment before use. Wear clean gloves when handling foam so as not to transfer grease, oils, sweat to the surfaces to be bonded. If the surface of the foam has been exposed to sunlight for a long period this will cause degradation and this damaged material should be removed by sanding. Note that PVC HT will require heat treatment before being used with prepregs if sanded or cut.

Structural foam cores surfaces are made from small cells which should be filled with the Spabond 568 to generate the best results, this is accomplished by using a stiff plastic or steel spreader held at approximately 20 – 30 degree to the surface and with a firm action spreading thinly the Spabond 568 over the surface with sufficient force to fill the cells and kerfs. With this accomplished extra Spabond can then be applied to a depth suitable for the bonding operation

SURFACE PREPARATION – Other materials

Before using the product ensure that surfaces to be bonded are clean, degreased, dry and dust-free.
Prepare all surfaces by abrading either with shot blasting or with medium grit paper or other suitable abrasive.
After abrading ensure removal of all dust.

Metals – Prepared according to Gurit surface preparation guide

Epoxy laminates - it is recommended to use a suitable Peel Ply as the last stage in their manufacture, otherwise prepare as above. Trials may be required to test Peel Ply suitability.

Polyester or Vinylester laminates - ensure laminates are fully cured before bonding, it is recommended to use a suitable Peel Ply as the last stage in their manufacture, otherwise prepare as above.

Timber - sand with abrasive paper across grain. Degrease oily timber with a fast-evaporating solvent (e.g. acetone). For resinous or gummy timber, etch with 2% caustic soda solution, wash off with fresh water and dry.

MIXING & HANDLING

When mixing by hand, mix thoroughly for at least one minute, paying particular attention to the sides and bottom of the mixing vessel, to ensure no streaks remain. Once fully mixed the adhesive should have a uniform color. Use from pot quickly to maximize resin working life.

CURE SCHEDULE

A post-cure is required to generate optimum mechanical properties for this system. The recommended minimum cure schedule is 5 hours at 70°C or 16 hours at 50°C. Ambient temperature cure of this system will not generate adequate mechanical properties and is therefore not recommended.

TRANSPORT & STORAGE

The resin and hardener should be kept in securely closed containers during transport and storage. Any accidental spillage should be soaked up with sand, sawdust, cotton waste or any other absorbent material. The area should then be washed clean (see appropriate Safety Data Sheet). Adequate long term storage conditions will result in a shelf life, as per table, from the date of manufacture for both the resin and hardeners, see product container label for expiry date.

COMPONENT	UNITS	10 – 25°C
Spabond 568 Resin	Months	12
Spabond 568 Hardener	Months	12

Storage should be in a warm dry place out of direct sunlight and protected from frost. The storage temperature should be kept constant between 10°C and 25°C, cyclic fluctuations in temperature can cause crystallization. Containers should be firmly closed. Hardener, in particular, will suffer serious degradation if left exposed to air. Hardeners may darken over time, however the physical properties are not affected.

SPABOND 568

This product summary is intended for use in conjunction with further advice provided under the Instructions for Use section. All data has been generated from typical production material and does not constitute a product specification.

PROPERTY	UNITS	SPABOND 568 RESIN	SPABOND 568 HARDENER	MIXED SYSTEM	TEST METHOD
Appearance - color	Description	Light green	Pale brown	Neutral grey	-
Appearance - form	Description		Thixotropic paste		
Mix ratio by weight	Parts by weight	100	44	-	-
Mix ratio by volume	Parts by volume	100	50	-	-
Density at 21 °C	g/cm^3	0.65	0.57	0.62	Archimedes

COMPONENT & MIXED SYSTEM PROPERTIES

PROPERTY	UNITS	15°C	20°C	25°C	30°C	TEST METHOD
Spabond 568 Resin viscosity	P	937	507	330	261	-
Spabond 568 Hardener viscosity	P	1423	916	810	555	-
Initial mixed system viscosity	P	-	804	501	415	-
Pot-life (150 g, mixed in water)*	hrs:min	-	05:40	03:40	-	-
Clamp time* (time to 2kN cleavage strength)	hrs:min	-	24:30	-	-	BS 5350 Part C1
Sag resistance*	mm	-	10	7	-	-

ADHESIVE PERFORMANCE

MECHANICAL PROPERTIES	SYMBOL	UNITS	28 DAYS AT 21°C	16 HOURS AT 50°C**	TEST STANDARD
Cleavage on steel (0.5mm bondline)	$F_{cleavage}$	kN	3.5	3.6	BS 5350 Part C1
Lap shear on steel (0.5mm bondline)	τ_{steel}	MPa	11.8	10.4	BS 5350 Part C5

CURED MECHANICAL AND THERMAL PROPERTIES

MECHANICAL PROPERTIES	SYMBOL	UNITS	28 DAYS AT 21°C	16 HOURS AT 50°C**	TEST STANDARD
Glass transition temperature	Tg_1	°C	59	67	ISO 6721 (DMA)
Cured density	ρ_{ply}	g/cm3	0.68	0.68	Archimedes
Volumetric shrinkage		%	8	8	Archimedes

**working time properties are highly subjective to ambient conditions and should be used as an approximate guideline*
***initial cure of 24 hours at 21°C*

HEALTH AND SAFETY

The following points must be considered:

1. Skin contact must be avoided by wearing protective gloves. Gurit recommends the use of disposable nitrile gloves for most applications. The use of barrier creams is not recommended, but to preserve skin condition a moisturizing cream should be used after washing.
2. Protective clothing should be worn when mixing, laminating or sanding. Contaminated work clothes should be thoroughly cleaned before re-use.
3. Eye protection should be worn if there is a risk of resin, hardener, solvent or dust entering the eyes. If this occurs flush the eye with water for 15 minutes, holding the eyelid open, and seek medical attention.
4. Ensure adequate ventilation in work areas. Respiratory protection should be worn if there is insufficient ventilation. Solvent vapors should not be inhaled as they can cause dizziness, headaches, loss of consciousness and can have long term health effects.
5. If the skin becomes contaminated, then the area must be immediately cleansed. The use of resin-removing cleansers is recommended. To finish, wash with soap and warm water. The use of solvents on the skin to remove resins etc must be avoided.

   Washing should be part of routine practice:

   - before eating or drinking
   - before smoking & vaping
   - before using the lavatory
   - after finishing work

6. The inhalation of sanding dust should be avoided and if it settles on the skin then it should be washed off. After more extensive sanding operations a shower/bath and hair wash is advised.

Gurit produces a separate full Safety Data Sheet for all hazardous products. Please ensure that you have the correct SDS to hand for the materials you are using before commencing work.

NOTICE

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The Company strongly recommends that Customers make test panels in the final process conditions and conduct appropriate testing of any goods or materials supplied by the Company prior to final use to ensure that they are suitable for the Customer's planned application. Such testing should include testing under conditions as close as possible to those to which the final component may be subjected. The Company specifically excludes any warranty of fitness for purpose of the goods other than as set out in writing by the Company. Due to the varied nature of end-use applications, the Company does, in particular, not warrant that the test panels in the final process conditions and/or the final component pass any fire standards.

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Gurit is continuously reviewing and updating literature. Please ensure that you have the current version by contacting your sales contact and quoting the revision number in the bottom left-hand corner of this page.

CONTACT INFORMATION

Please see local contact information at www.gurit.com

24-HOUR CHEMICAL EMERGENCY NUMBER

For advice on chemical emergencies, spillages, fires or exposures:

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