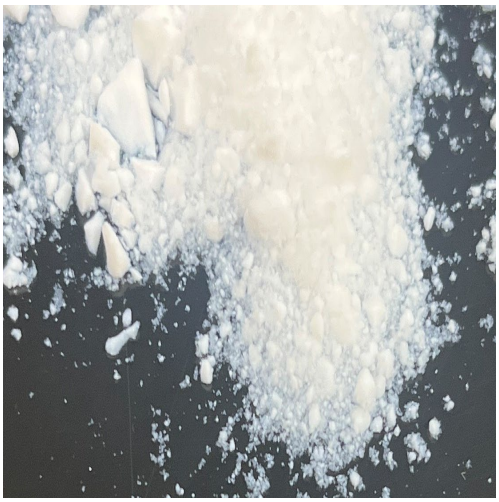
Gurit EPOXY

PRODUCT DATASHEET

Gurit

AMPRO™ COLLOIDAL SILICA

HYDROPHOBIC RESIN THICKENER



AMPRO Colloidal Silica is an agent which is used to control the thixotropy or 'sag' characteristics of a resin system. By adding colloidal silica powder in varying amounts to a resin mix containing the other filler types mentioned, the handling and flow characteristics can be controlled.

Relatively small quantities added to a resin mix containing glass bubbles or microballoons will give non-sag properties and impart easier handling. Colloidal silica is also used with microfibres to produce a mix suitable for use as a high strength, non-sagging structural adhesive, particularly for non-absorbent materials such as grp. The inclusion of colloidal silica has the effect of increasing the hardness of the resulting mix which will create more difficulty when sanding. For this reason colloidal silica is usually added in the minimum quantities to any mix for which sanding is anticipated. In some applications this feature can be used to an advantage, for example to create a hard wearing edge or surface.

AMPRO Silica is naturally water-resistant / hydrophobic making it more suited for marine applications. Lower loading levels are required compared to traditional silica, up to 2% reduction by weight.

Gurit has a range of filler powders which are designed to modify the properties of Gurit multi-purpose systems, and so create resin mixes for use as fillers and adhesives. The fillers form three distinct categories: hollow spheres, short fibers, and flow modifiers.

- Fine white powder
- Used to control the thixotropy or 'sag'
- Can be used with Glass Bubbles, Microballoons and Microfibres
- Naturally water-resistant / hydrophobic for marine applications
- Lower loading levels compared to traditional silica, up to 2% by weight
- White in color

PRODUCT DETAILS

Composition:	Hydrophobic Silicon Dioxide
Appearance:	White powder
Particle Size:	0.012 microns
Bulk Density:	50 - 60g/litre approx

INSTRUCTIONS FOR USE

Below are approximate filler loadings for making adhesive and filler mixes together with AMPRO multi-purpose systems. For further information please refer to the respective AMPRO datasheet.

ADHESIVE MIXES

All filler additions are approximate and can be adjusted by the user to achieve the desired consistency.

FILLER TYPE	DESCRIPTION	FILLER QUANTITY		AMPRO SILICA ADDITION*		APPROX. DENSITY	APPROX. VOLUME
		%	FOR 1KG	%	FOR 1KG		
Microballoons**	Brown, low density	15 - 20	150 - 200g	3 - 5	30 - 50g	0.7 g/cm3	1.8 Ltrs
Glass Bubbles**	White, low density	15 - 20	150 - 200g	4 - 6	40 - 60g	0.6 g/cm3	2.0 Ltr
Microfibres	Opaque, high strength	7 - 10	70 - 100g	2 - 4	20 - 40g	0.9 g/cm3	1.0 Ltr

**calculated by weight relative to the mixed system of resin and hardener*

FILLING AND FAIRING MIXES

All filler additions are approximate and can be adjusted by the user to achieve the desired consistency.

FILLER TYPE	DESCRIPTION	EASE OF SANDING	WATER RESISTANCE	FILLER QUANTITY		AMPRO SILICA ADDITION*		APPROX. DENSITY	APPROX. VOLUME
				%	FOR 1KG	%	FOR 1KG		
Microballoons	Brown, low density	Easy	Moderate	25 - 30	250 - 300g	2 - 3	20 – 30g	0.6 g/cm3	2.2 Ltrs
Glass Bubbles	White, low density	Moderate	High	35 - 40	350 - 400g	3 - 5	30 – 50g	0.5 g/cm3	3.0 Ltrs

**calculated by weight relative to the mixed system of resin and hardener*
***Microfibres are always preferred for load-carrying adhesive joints*

MIXING & HANDLING

When mixing add Microballons, Glass bubbles or Microfibres first to the mixed resin / hardener and mix in fully. Add the silica next to the stiffness of mix required. Always pay particular attention to the sides and bottom of the mixing vessel, to ensure an even consistency of the entire mix.

AVAILABILITY

The product is available in a number of formats as shown in the table below. Please contact your local customer support representative for more information.

FILLER TYPE	500ML	250G	2.5KG	NOTE
AMPRO Silica	A220-007	A220-008	A220-009	All quantities are approximate due to the low density nature of the fillers.

TRANSPORT & STORAGE

The product should be kept in securely closed containers during transport and storage. Adequate long term storage conditions will result in a shelf life, as per table, see product container label for expiry date.

COMPONENT	UNITS	10 – 25°C
AMPRO Silica	Months	24

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

All advice, instruction or recommendation is given in good faith but the selling Gurit entity (the Company) only warrants that advice in writing is given with reasonable skill and care. No further duty or responsibility is accepted by the Company. All advice is given subject to the terms and conditions of sale (the Conditions) which are available on request from the Company or may be viewed at Gurit's Website: www.gurit.com/terms-and-conditions.aspx

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.

The Company reserves the right to change specifications and prices without notice and Customers should satisfy themselves that information relied on by the Customer is that which is currently published by the Company on its website. Any queries may be addressed to the Technical Services Department.

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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