

# MICROFIBRES

## OPAQUE STRUCTURAL BONDING FILLER

- Very fine wood-cellulose fibres
- Ideal for structural adhesives for bonding
- Suitable for both wood and GRP
- Opaque in colour

### INTRODUCTION

**Microfibrils are very fine wood-cellulose fibres commonly used to make structural adhesive mixes in conjunction with AMPRO™ multi-purpose systems for bonding both wood and grp.**

Because any low viscosity resin system is readily absorbed into a porous surface such as wood, an unfilled adhesive may tend to give a 'dry joint'. With their absorbent properties, microfibrils can retain a significant quantity of adhesive within a joint and limit resin absorption into the surrounding surface, thus ensuring an adequate resin supply for adhesion. Where the strongest bond is required, e.g. timber scarf joints, microfibrils should always be used in preference to hollow sphere-types of filler.

For bonding parallel to the grain with lower density, lower strength timbers, such as cedar or obeche, a microballoon mix is often adequate, and is of lower density.

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 fibres, and flow modifiers.



#### Hollow spheres

Increase the volume and reduce the density of any resin system and are used to make adhesive mixes and filling & fairing mixes.

- Microballoons: Brown microsphere filler powder used to make glues or paste fillers
- Glass Bubbles: White microsphere filler powder used to make glues or paste fillers

#### Short Fibres

For adding strength to a resin and hardener mix used as a structural adhesive, short reinforcing fibres are often added which act in a similar strengthening way to the long reinforcing fibres used in composite construction.

- Microfibrils: Cellulose fibres used to make adhesive mixes

#### Flow Modifiers

The most common material for modifying the flow properties of a resin mix is colloidal silica. This is a very fine powder which is added in conjunction with other fillers to 'thicken' mixes and reduce their flow on vertical surfaces (increase thixotropy).

- Colloidal Silica: Fine, anti-sag, filler powder. Use in combination with other filler powders

## PRODUCT INFORMATION

### 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 / 100G	2.5 LITRES / 500G	25 LITRES / 5KG	50 LITRES / 10KG	NOTE
Microfibres	A215-004	A215-003	A215-005	A215-008	All quantities are approximate due to the low density nature of the fillers.

### PRODUCT DETAILS

<b>Composition:</b>	Milled bleached cellulose wood pulp
<b>Appearance:</b>	White 'fluffy' fibrous consistency
<b>Particle Size:</b>	200 - 300 microns
<b>Particle Density:</b>	Particles absorb resin
<b>Bulk Density:</b>	100g/litre approx.

### 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 of 2 years from the date of manufacture. Storage should be in a warm dry place out and containers should be firmly closed.

COMPONENT	UNITS	
Microfibres	months	24

## 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.

### FILLING AND FAIRING MIXES

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

DESCRIPTION	FILLER TYPE	EASE OF SANDING	WATER RESISTANCE	FILLER QUANTITY*		AMPRO SILICA ADDITION*		APPROX. DENSITY	APPROX. VOLUME
				%	FOR 1KG	%	FOR 1KG		
Brown, Low Density	Microballons	Easy	Moderate	25 - 30	250 - 300 g	2 - 3	20 - 30	0.6 g/cm <sup>3</sup>	2.2 Litres
White, Low Density	Glass Bubbles	Moderate	High	35 - 40	350 - 400 g	3 - 5	30 - 50	0.5 g/cm <sup>3</sup>	3.0 Litres

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

### ADHESIVE MIXES

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

DESCRIPTION	FILLER TYPE	FILLER QUANTITY*		AMPRO SILICA ADDITION*		APPROX. DENSITY	APPROX. VOLUME
		%	FOR 1KG	%	FOR 1KG		
Brown, Low Density	Microballons**	15 - 20	150 - 200 g	3 - 5	30 - 50 g	0.7 g/cm <sup>3</sup>	1.8 Litres
White, Low Density	Glass Bubbles**	15 - 20	150 - 200 g	4 - 6	40 - 60 g	0.6 g/cm <sup>3</sup>	2.0 Litres
Opaque, High Strength	Microfibres	7 - 10	70 - 100 g	2 - 4	20 - 40 g	0.9 g/cm <sup>3</sup>	1.0 Litres

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

\*\*Microfibres are always preferred for load-carrying adhesive joints

## HEALTH AND SAFETY

The following points must be considered:

- 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 moisturising cream should be used after washing.
- Protective clothing should be worn when mixing, laminating or sanding. Contaminated work clothes should be thoroughly cleaned before re-use.
- 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.
- Ensure adequate ventilation in work areas. Respiratory protection should be worn if there is insufficient ventilation. Solvent vapours should not be inhaled as they can cause dizziness, headaches, loss of consciousness and can have long term health effects.
- 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
- 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.

### APPLICABLE RISK & SAFETY PHRASES

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.

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.

## TECHNICAL CONTACT INFORMATION

For all other enquiries such as technical queries:

Telephone + 44 1983 828000 (08:30 – 17:00 GMT)  
Email [technical.support@gurit.com](mailto:technical.support@gurit.com)

## 24-HOUR CHEMICAL EMERGENCY NUMBER

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

Europe +44 1273 289451  
Americas +1 646 844 7309  
APAC +65 3158 1412

**E** [uk-customer.support@gurit.com](mailto:uk-customer.support@gurit.com)

**W** [www.gurit.com](http://www.gurit.com)