

## FILLER DESCRIPTIONS AND USES



### Introduction

WEST SYSTEM Filler powders are designed to modify the properties of WEST SYSTEM & PRO-SET epoxy mixes to create a variety of compounds of differing viscosities that can be used for filling, fairing, filleting and bonding applications. The fillers are categorised into two types: High Density and Low Density.

### High Density

403 Microfibres, 404 High Density Filler, 405 Filleting Blend, 406 Colloidal Silica  
For adding strength to a resin and hardener mix and to provide a structural adhesive. The fibrous fillers, 403 & 405 also helps to prevent resin starvation when bonding porous surfaces. 406 Silica can be used to adjust the thixotropy of epoxy mixes.

#### 403 Microfibres

WEST SYSTEM Microfibres are very fine cellulose fibres used to create structural adhesives with excellent gap filling properties for bonding most boatbuilding materials including both wood and GRP. Microfibres is an excellent choice when bonding porous materials such as wood because the fibrous nature of the the filler retains a significant quantity of epoxy within a joint and limits resin absorption into the surrounding surface ensuring an adequate resin supply for adhesion. Where the strongest bond is required, e.g. timber scarf joints, microfibres are the best option.

#### Product Details

Composition:	Milled bleached cotton fibre
Appearance:	White 'fluffy' fibrous consistency
Average Fibre length:	0.3 - 0.38mm
Bulk Density:	150g/litre approx.
Availability:	

403	0.15 kg (approx. 1.5 litre)
403A	0.75 kg (approx. 5 litres)
403B	3.2 kg (approx. 32 litres)
403C	20.0 kg (approx. 200 litres)

#### 404 High Density Filler

404 High-Density filler is a thickening additive developed for maximum physical properties in hardware bonding where high-cyclic loads are anticipated. It is also used for filleting and gap filling where maximum strength is necessary.

#### Product Details

Composition:	mineral powder
Appearance:	white/grey powder
Bulk Density:	0.25kg/litre approx.
Availability:	

404	0.25 kg (approx. 0.75 litre)
404A	1.75 kg (approx. 5 litres)
404B	10.0 kg (approx. 30 litres)

### 405 Filleting Blend

405 Filleting Blend is a strong, wood-toned filler that is ideal for use in glue joints and fillets on naturally finished wood. The filler mixes easily with WEST SYSTEM epoxy to produce fillets that are smooth and require little sanding. Its colour is a consistent brown, thus allowing 405 to be used to modify the shade of other WEST SYSTEM fillers.

#### Product Details

Composition:	fibrous wood pulp	
Appearance:	brown powder	
Bulk Density:	150g/litre approx.	
Availability:		
	405	0.15 kg (approx. 1 litre)
	405A	0.70 kg (approx. 5 litres)
	405B	5.0kg (approx. 50 litres)

### 406 Colloidal Silica

406 Colloidal Silica is the most versatile filler and is a thickening additive for bonding, gap filling and filleting. The addition of this filler controls the viscosity of the epoxy and can be used to prevent epoxy runoff in vertical and overhead joints. When adding colloidal silica in varying amounts to epoxy mix, the viscosity is quickly and easily adjusted. Often used in combination with other fillers, it is used to improve the strength, abrasion resistance, and consistency of fairing compounds, resulting in a harder, smoother surface.

#### Product Details

Composition:	Silicon dioxide	
Appearance:	White powder	
Particle Size:	0.012 microns	
Bulk Density:	50g/litre approx.	
Availability:		
	406	0.06 kg (approx. 1.1 litre)
	406A	0.275 kg (approx. 5 litres)
	406B	1.5 kg (approx. 50 litres)
	406C	10.0 kg (approx. 200 litres)

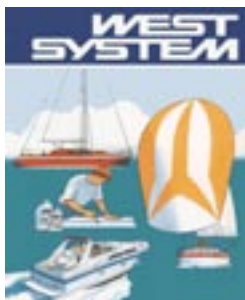
### Low Density

407 Low Density Filler, 409 Microspheres, 410 Microlight

Hollow spheres serve to increase the volume and reduce the density of any resin system and are used to make filling & fairing mixes. These epoxy/filler mixes are regularly used for producing easily sanded compounds. 407 Low Density can be used for making low density adhesives for low strain applications.

#### 407 Low Density Filler

This microballoons product is a blend of various fillers but is based upon phenolic resin hollow spheres which have a distinctive reddish/brown colour. This filler is particularly useful for cosmetic fillet joints and fillers in wood construction as well as producing structural adhesives for less demanding applications on softer timbers such as cedar. When storing microballoons, it is particularly important to exclude air as they readily absorb atmospheric moisture which will affect the performance of the filled mix.



### Product Details

Composition:	Phenolic Spheres
Appearance:	Red/Brown Powder
Particle Size:	50 microns
Bulk Density:	100g/litre
Availability:	
	407            0.15 kg (approx. 1.1 litre)
	407A        0.70 kg (approx. 4.5 litres)
	407B        3.5 kg (approx. 33 litres)
	407C        15.0 kg (approx. litres)

### 409 Microspheres

This filler consists of hollow glass spheres with a more variable particle size than microballoons. These spheres are more coarse and physically harder than 407 Low Density Filler and because of this characteristic, filled resin mixes are noticeably more difficult to sand.

### Product Details

Composition:	Hollow Glass Spheres
Appearance:	White powder
Particle Size:	40 - 80 microns
Bulk Density:	100-150g/litre approx.
Availability:	
	409            0.2 kg (approx. 1.1 litre)
	409A        1,0 kg (approx. 5 litres)
	409B        4,5 kg (approx. 23 litres )
	409C        20 kg (approx. 100 litres)

### 410 Microlight™

410 Microlight is the ideal low-density filler for creating a light, easily-worked fairing compound especially suited for fairing large areas. Microlight mixes with greater ease than 407 Low Density Filler or microballoons and is approximately 30% easier to sand. It feathers to a fine edge and is also more cost effective than other fillers for large fairing jobs. Not recommended under dark paint or other surfaces subjected to high temperatures.

### Product Details

Composition:	Hallow Glass Spheres
Appearance:	Beige powder
Bulk Density:	50g/litre approx.
Availability:	
	410            0.05 kg (approx. 1.1 litre)
	410A        0.2 kg (approx. 5 litres)
	410B        1,5 kg (approx. 33 litres )

WEST  
SYSTEM<sup>®</sup>

WEST  
SYSTEM<sup>®</sup>

WEST  
SYSTEM<sup>®</sup>

WEST  
SYSTEM<sup>®</sup>

WEST  
SYSTEM<sup>®</sup>

WEST  
SYSTEM<sup>®</sup>