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

402 Milled Glass Fibre Blend, 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.

402 Milled Glass Fibre Blend

A high density blended fi ller consisting of loose chopped glass and other fi llers, intended for small semi structural repairs, fi lling voids, or small scale impact damage to glass fi bre laminates. The fi nished repairs are incredibly strong, tough and resilient.

When mixed with WEST SYSTEM epoxy at a ratio of approximately 25% by weight, the result is a thick paste that can be carefully stippled into place with a brush and can be held in place with PVC tape or peel ply to give a smooth fi nish to the repair. Typical uses include deep void repair due to osmotic damage; damage to dinghy rudder and centre boards and hard edge impact damage on small sailboats.

Product Details

Composition: Milled glass fibre, thickening powder

Appearance: White fibrous powder

Average Fibre length: 6mm

Bulk Density: 200g/litre approx.

Availability: 402 0.15 kg (approx. 0.75 litre) 402A 1.0 kg (approx. 5 litres)

402B 5 kg (approx. 28 litres)

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. 28 litres)
 403C 20.0 kg (approx. 200 litres)

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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. 32 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. 32 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

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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. 150 litres)

409 Microsphere Blend

A pure white, blended microsphere based filler for filling and fairing GRP boats. This light weight additive has good load bearing strength but is easy to work with hand tools after cure. When the filler is mixed with WEST SYSTEM epoxy at a ratio of 10% to 25% by weight, it creates a smooth creamy paste for filling and fairing over glass fibre repairs. The cured epoxy/fi ller is very easy to sand.

Being white in colour the cured epoxy fi ller mix will be hidden easily behind paint or polyester gelcoat but must be protected by further coats of epoxy if used below the waterline.

Product Details

Composition: Hollow Glass Spheres and thickening additive

Appearance: White powder
Particle Size: 40 - 80 microns
Bulk Density: 150-200g/litre approx.

Availability 409 0,1 kg (approx. 1.1 litres)

409A 0,4 kg (approx.5 litres) 409B 3,0 kg (approx. 33 litres)

410 Microlighttm

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)

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