

Using Fillers

Epoxy is used in numerous ways for boat repair and construction. Fillers help expand epoxy's versatility by altering its consistency, usually for bonding or fairing projects. By adjusting the amount and type of filler, a user can tailor the consistency of a batch to suit a particular job.

When using epoxy for laminating or bonding flat panels with large surface areas, or injecting it with a syringe, a slightly thicker mix is necessary. It will sag down vertical surfaces, and resemble ketchup in consistency.

Bonding, filleting or hardware bonding projects call for a moderately thickened batch. It clings to vertical surfaces, but peaks, formed by dipping a stirring stick in the thickened epoxy, fall over. This mixture is the consistency of mayonnaise.

The epoxy/filler mixture should be as thick as possible for gap filling, filleting, fairing and bonding uneven surfaces and have a peanut butter like consistency that produces peaks which stand up.

Before adding any filler, always mix the resin and hardener together thoroughly. It's a good idea to begin with a small batch. Small scoops of the appropriate filler are then added until the desired consistency is reached. It is essential that all of the filler is completely blended before the mixture is applied.

Fillers for all types of epoxy applications are available in the WEST SYSTEM® product line. Each filler possesses a unique set of physical characteristics, but they can generally be categorized as either Adhesive (high density) or Filling & Fairing (low density).

Adhesive 413 Microfibre Blend mixtures cure to a strong, hard-to-sand plastic useful in structural applications like bonding, filleting and hardware bonding.

Filling 411 Microsphere Blend mixtures cure to a lightweight filling putty with excellent characteristics for applications like non-structural filleting, or edge gluing in strip plank construction.

Fairing 410 Microlight mixtures cure to a light, easily sandable material that is used for cosmetic or surface applications like shaping, filling or fairing.

Filler Selection Guide

USES - desired characteristics	ADHESIVE FILLERS Highest density Highest strength	FAIRING FILLERS Lowest density Easiest sanding	
	413 Microfibre Blend	411 Microsphere Blend	410 Microlight™
Bonding Hardware - Increased fastener interface & hardware load capability - maximum strength	***		
General Bonding - Join parts with epoxy thickened to create a structural gap filler - strength/gap filling	***	*	
Bonding with Fillets - Increase joint bonding area and create a structural brace between parts- smoothness/strength	**	***	
Laminating - Bond layers of wood strips, veneers, planks, sheets and cores- gap filling/strength	****	**	
Fairing - Fill low areas and voids with an easily shaped and sanded surface filler/fairing compound- sandability/gap filling		***	****

Filler suitability for various uses ****excellent ***very good **good *fair (no stars) not recommended