

## MARINE CAULK AND SEALANTS TIPS & FAQ'S

### **Marine Adhesives (Caulk) and Sealants Overview:**

What is the difference between an adhesive (caulk) and a sealant? Is there a combination?

A caulk binds to a surface and creates a barrier between the outside and the inside areas. Essentially it fills a gap and provides a gasket between two surfaces. Caulks are much less flexible or elastic than sealants.

A sealant is also a gasket type material but can also be considered a barrier between the two surfaces and has much more flexibility than a caulk. Hence the reason why sealants are the choice for areas prone to expansion and contraction. Sealants are also meant to create a long-term seal that stays intact and prevents moisture or water from getting in.

Adhesive sealants are therefore gasket materials that adhere greatly to the two surfaces they are applied between.

### **Choosing the right adhesive (caulk) or sealant:**

#### **Polyurethanes**

These work best with hardware above and below the waterline. They provide excellent adhesion and are especially good if you don't plan on removing the hardware. They do tend to yellow when exposed to UV. These can be painted with latex paints when used above the waterline. Some oil-based paints will crack over time when applied over polyurethanes. In some cases, it is important to apply a paint or coating before the polyurethane sealants skins over, otherwise poor adhesion may result.

#### **Polyether and Silane Modified Polyether (SMP)**

These provide strong adhesion and can be removed easier than the polyurethane caulks. They don't yellow when exposed to UV. Skin over and cure time is about the same as a fast cure polyurethane. Can also be easily painted.

### **Polysulfide**

These are flexible and chemical resistant. They also provide UV resistance. These are an excellent choice for bedding teak decks. Can be painted with latex and oil-based paints, although in some cases the polysulfide can affect the dry of oil-based paints and varnishes. When painting polysulfide sealant with oil-based paints, it is a good idea to apply a tie-coat primer before applying the oil-based paint.

### **Silicone**

Great for waterproofing but not adhering. Also excellent for hardware that must be removed someday. Silicones can't be painted and typically have a strong odor (not to be used in enclosed areas). They are compatible with most plastics.

### **Hybrid Blends**

There are products that are blends of Silicones and Polyurethanes. These combine the UV resistance of Silicone with the great adhesion of Polyurethane. Many of these silicone and polyurethane blends can be painted with oil-based or latex paints. With all types of caulks and sealants it is a good idea to do a test sample on your specific substrate first before starting your project.

## **Marine Adhesives (Caulks)/Sealants FAQ**

### ***Do I need different caulking products for different jobs?***

Yes, caulks differ in formulations and uses. It is important to choose the right caulk for your job. Please consult our reference materials for the proper product for application.

### ***Do I need to prep the surface before applying caulk?***

Yes, proper surface prep is necessary for proper product performance. Follow the instructions for surface prep.

### ***How do I apply the caulk?***

Most caulks are packaged in cartridges or squeeze tubes. It is important that when cutting open the tip to make sure the diameter of the opening is adequate for caulk you will need to do the job. Some tubes and cartridges require piercing of a protective foil prior to dispensing.

### ***How can I apply the nicest bead possible?***

There are many finishing products on the market to assist with overall finish. We'd suggest the use of hard plastic or silicone finishing tools. These do an excellent job pushing caulk into joints and creating perfectly smooth beads.

### ***Can I apply caulk over caulk?***

It is not recommended and should not be done. Remove the old caulk before applying the new caulk.

### ***Do I have to use the tube all at once?***

No, you can usually store and reuse depending on formulation. Polyurethanes will not last after initial use. Polyurethanes should be used up completely at once. One of the many benefits of SMP's or Hybrid Blends is that they can be used, stored, and used again.

### ***Can caulk be use below the waterline?***

It depends on the type you are using. Check manufactures instructions for usage.

### ***Can I paint over caulk?***

Again, it depends on the type you are using. Check the manufactures instructions.

### ***How do caulk guns work?***

A caulking gun is a tool that holds the cartridge filled with material for application. The tube is placed in the gun with the nozzle facing forward. The plunger in the back is pushed tightly against the bottom of the tube. Pulling the trigger forces the caulk in the tube out the nozzle for application.

There are different types of caulk guns available for use. Standard Type, Pneumatic, Battery Powered Gun and Dual Cartridge Gun.

1. Standard Type is the most commonly used type. The cartridge is loaded into the gun. The plunger in the back is tightly pressed against the bottom of the tube. Pulling the trigger releases the contents of the tube.
  - a. **Note** – SMP's typically require a more heavy-duty dispensing gun due to their higher viscosity. 18:1 or greater ratio. An example of a high viscosity product that should use a heavy-duty dispensing gun is our AnchorTech™ Premium Fast Dry Adhesive Sealant.

2. Pneumatic Guns require air pressure. Be sure to use the commended air pressure for the caulk you are going to use. When the tube is placed in the gun, and the trigger is pulled contents are released.
3. Battery Power Guns are similar to regular caulk guns in that you place the tube in the gun and then by pulling the trigger the contents are released. It is easier to use vs. regular gun but are much larger in size and may have issues getting into small areas.
4. Dual Dosing Caulk Guns are designed for two component mixes like epoxy. Both cartridges are loaded into the gun. Plungers are tightly pressed against the tube. Pulling the trigger releases both components at the same time. There are very few examples of two component adhesives and sealants.

### ***How do I remove old, existing caulk?***

Unfortunately, the most effective method of removal is by brute force. Using a utility knife or putty knife by slicing through the caulk and peeling it away. For multiple layers of caulk, a caulking scraper oscillating multi-tool accessory blade should be considered. It's important not to dig too deep and damage the surface. And always take extra precaution when using sharp tools. Go slow, use protective equipment and be safe.

Another way to remove silicone caulk is by purchasing a store-bought silicone solvent. This works by expanding the caulk, which helps loosen the bonds holding it to the surface to which it's clinging. Vinegar and isopropyl alcohol will also do the trick. The best way to remove silicone is with a silicone sealant remover. WD-40, vinegar or alcohol work well here. Wait for it to soften and then remove it with a knife or paint scraper.