



ADVANCED ADHESION INC.

MARKET-READY ADHESIVE FORMULATIONS

Mr. Sticky's[®] Poly-Bonder[™] - Sales Points

Welcome to the sales team for Mr. Sticky's[®] Poly-Bonder[™]! In order to assist your sales effort, we have compiled the following Features and Benefits that may help your customers understand the product. Please feel free to offer us any comments and or successful sales points so that we can add them to this document.

Most buyers want to know what is different about this adhesive versus existing glues:

Bonding Polyethylene: Polyethylene is designed to be difficult to bond. As a non-stick, easy-to-clean surface it is superb. This same feature challenges adhesive bonding as well.

Some of the strongest adhesive bonds are chemical bonds. Chemical bonds are formed when the adhesive and substrate share electrons. Because Polyethylene has no electrons to share, chemical bonds with typical adhesives are normally unsuccessful.

Poly-Bonder[™] combines its unique affinity for plastics bonding with quick flame-treating to accomplish a structural bond to most polyethylene substrates. This chemical bond is often as strong as the polyethylene itself.

Most plastics require some form of surface preparation before bonding. Typically this is done with a solvent to remove any impediments to good bonds. For Polyethylene (PE) and High Density Polyethylene (HDPE) no solvent is used, just a quick flame-treatment!

To flame-treat an off-the-shelf propane torch with a flame spreader is the tool of choice. This tool, when run near max flame, offers a two-part flame. Adjust the torch so that the hottest portion of the flame near the torch nozzle that is very blue remains within the confines of the flame spreader attachment. The secondary flame, which is the "oxidizing flame" should now extend beyond the flame spreader approximately 1-1/2"-2" (the secondary flame is difficult to see unless in a darkened room).

The idea behind the flame treatment is to make electrons available for sharing in a chemical bond. This is accomplished by oxidizing the surface. This is not detrimental to the PE or HDPE structurally and does not change the color. The only noticeable change is a slight difference in the gloss of the surface between the oxidized and non-oxidized portions of the PE or HDPE. We tested several exposure rates and determined that approximately 2-3 seconds of exposure seems best. We executed this exposure by making 5 gentle passes across the area to be bonded.

The verifiability that the flame-treatment has been successful is simple. Just wet the surface of the HDPE and examine the surface immediately after wetting. If the water beads up and runs off normally (instantly), then the flame treating has not been effective. If the water sheets, then runs off slowly, the

flame treating has been effective. After a few attempts, it becomes second nature to identify by the amount of gloss-change on the surface if your surface treatment has been proper.

We recommend bonding within one hour after surface treatment.

Flame treating is not recommended for use on any project that may be associated with flammable materials. Flame-treating of items such as fuel tanks, chemical tanks, pipelines or other flammable containers is not recommended due to danger of explosion or fire.

Versatile: bond PE, HDPE, Starboard, PVC, ABS, Rubber, Metals, Fiberglass, Glass, and more.

Tough: Resilient grip to substrate, bends instead of breaking, resists shock and vibration.

Memory: Post-deflection adhesive returns to original shape.

Exterior Waterproof Poly-Bonder™ is Waterproof and Exterior rated. It can also be applied to wet or dry substrates. *Note: many adhesives are “water resistant” not “waterproof”, cannot be applied or maintain bonds in wet or exterior environments.*

Non-Sag formula Poly-Bonder™ is made “to stay where you put it”. This highly thixotropic (non-sag) formula resists sagging during application and curing. A 1/4” diameter bead of glue, applied horizontally on a vertical surface, will not run, but will cure in place. This means that it will also stay in place when applied to your project.

APPLICATIONS: Tank Repair including gray water, irrigation, chemical, septic, boat, RV, farm. Irrigation line, sprinkler lines, parts on Boats, Jet Skis, Kayaks, Wind-Surf-Boards, Motorcycles, Canoes, Spas, Pool Equipment, Furniture, Tractors, Trucks, Starboard.



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