



ADVANCED ADHESION INC.

MARKET-READY ADHESIVE FORMULATIONS

Mr. Sticky's® Underwater Glue - Sales Points

Welcome to the sales team for Mr. Sticky's® Underwater Glue! In order to assist your sales effort, we have compiled the following Features and Benefits which 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. Three breakthroughs are most amazing:

First, Mr. Sticky's® Underwater Glue actually bonds strongly to PVC. This is very unusual. If a buyer seems to miss the significance of this, simply ask him how he would repair vinyl lawn furniture. The answer is generally that there is no adhesive which can do it. He then realizes that bonding to PVC is a unique property! PVC is a good example because there are so many PVC items to be repaired. We took a PVC pipe union collar from a pool filter, sawed it in half, then repaired it and could not break it!!! Other products may mention that they stick to PVC, but how well? (Adhesive tape sticks to PVC but it can be easily separated, so the question is one of bond strength.) Use Mr. Sticky's® Underwater Glue for most materials except surfaces which contain teflon, silicone, polypropylene or polyethylene.

Second, Mr. Sticky's® Underwater Glue can be easily applied and bonded underwater. This major advance means that the glue is sticky underwater! The reason that it works is that the glue has an inter-molecular interaction force which sweeps the water molecules away much like similar pole magnets. The attraction between the glue and the bonded surface is stronger than the force between the water and the bonded surface so the glue sticks! This force dramatically increases as the glue cures and accounts for the amazing improvement in strength as the 24 hour curing time is reached, so be sure to advise customers to allow the full cure time for maximum bond strength. Do not allow pressure in a pipe until the glue is fully cured. Note: Most epoxies aren't sticky underwater.

Third, A very significant but often overlooked property of Mr. Sticky's® Underwater Glue is that it remains flexible. Epoxies have long been known to be extremely brittle. If you stretch other epoxies (also called elongation) they will fail at 1-4% increases from their original size. This means that as bonded joints shrink and expand (especially with dissimilar materials such as metal to glass) that the bonds may fail. This is one reason why epoxies have not been used for plumbing solutions (pipes shrink and expand too much due to temperature change). Mr. Sticky's® Underwater Glue has an elongation of 108%!!!! This means that it can stretch 108% without separating. It also causes the bond joint to act as a damper for vibration, further insuring bond integrity. To prove the shock damping we dropped a butt-jointed (end to end) PVC pipe from 3 stories onto concrete. The pipe bounced until the PVC shattered with the glue bond remaining intact. If you try that with other epoxies, most may fail on the first shock due to brittleness. This glue is so flexible that it can even be used for repairs on vinyl, PVC, hypalon® or polyurethane inflatable boats!

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General Comparisons to other types of products on the market:

Epoxy putty's or pastes: These are often used for mechanical, not adhesive joints. These perform well if they can surround an object, and fasten to it by mechanical shape. The products that we tested are not sticky and therefore have weak initial grip. Just look at the sales models and see how the glue is gooped in and around objects to make a bond solid. (Our glue can bond surface-to surface without surrounding the object.) These products are very brittle after curing, so often crack when stresses occur to the bond.

PVC cement *melts* pipe and fittings together and has some disadvantages. It may not bond well in wet conditions, it is not recommended for gap filling, and can not bond other materials to PVC.. Due to VOC content, users are exposed to highly flammable and unhealthy solvent vapors. **Mr. Sticky's® Underwater Glue contains no VOC's.**

APPLICATIONS: GLUE PVC FITTINGS ONTO IRON PIPE, FLEX OR TUBING; REPLACE TILE UNDERWATER; REPAIR ABOVE GROUND POOL LINERS; FIX PLASTER FLAKES;REPAIR MAIN DRAIN COVERS;SEAL PINHOLES IN STAINLESS FILTER TANKS; FIX POOL COVERS; REPAIR PIPE UNION COLLARS; FILL CRACKS IN PLASTER, CONCRETE, ACRYLIC, FIBERGLASS; REPAIR SPAS OR HOT TUBS; FIX PUMP HOUSINGS; FIX PIPE LEAKS; FIX PLASTIC, WOOD OR METAL PATIO FURNITURE, REPAIR INFLATABLE BOATS OR POOL TOYS, ABS DRAINS.



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