



## Comparing the original PSI putty sticks with the imitators: There's no comparison.

*At first glance, most two-part epoxy putty sticks look the same. But in this case what you see is not necessarily what you get. Here are the important differences...*



There are many epoxy putty sticks on the market and, if one takes a casual look, they seem pretty much the same. But beware, because they are not.

Polymeric Systems, Inc. invented the putty stick with breakthrough technology more than 30 years ago. Since then, PSI has worked to refine and improve the technology.

Given PSI's success, imitators jumped into the market to ride the bandwagon, and today putty sticks come from many countries, such as Europe, India, Taiwan, etc., generally (but not always) selling for slightly lower prices.

Since the raw materials are a significant percentage of the ultimate cost of a putty stick, such lower prices often reflect compromises in performance — as we have discovered in extensive testing over the years.

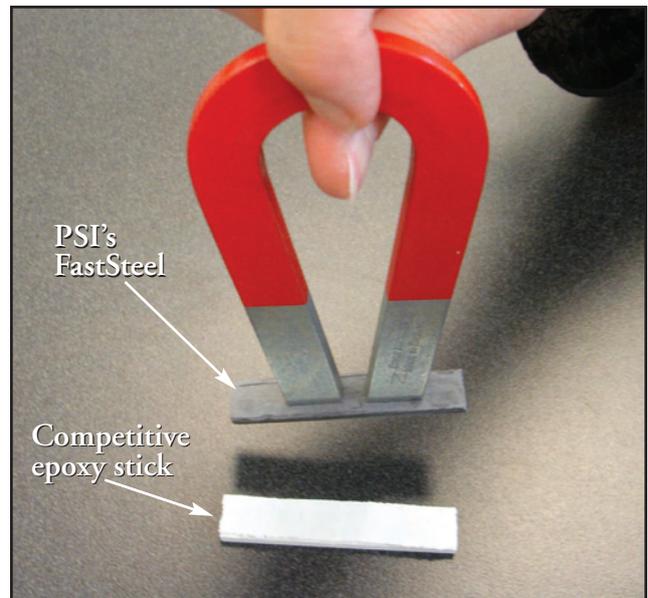
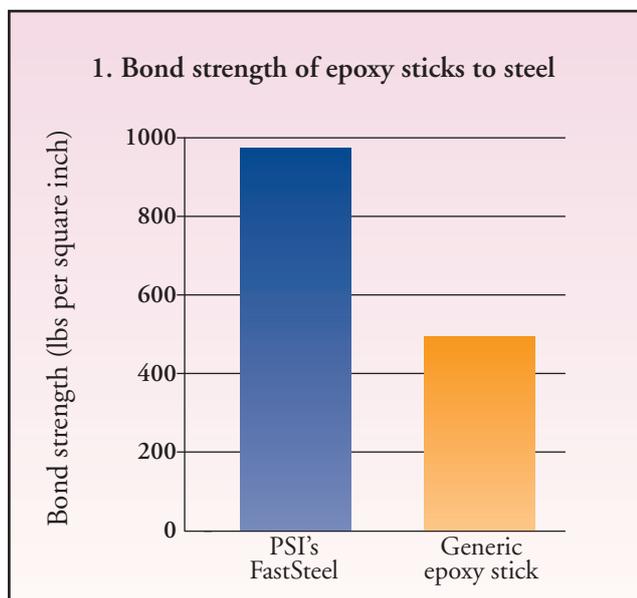
### Proving the differences

PSI recently ran a series of tests in our laboratory comparing sticks from five different sources: PSI, other competitors from the USA, Europe, Taiwan and India.

The results were not surprising, since this is not the first time PSI has tested the quality of its putty sticks against a variety of competitors on several different performance characteristics. Some of the test results are summarized in the charts below.

#### FastSteel®

For example: We tested our FastSteel against a competitor made in Taiwan. The results, while not unexpected by our technical director, nonetheless demonstrate how formulating a stick for a specific use can dramatically improve its performance (in this case by a factor



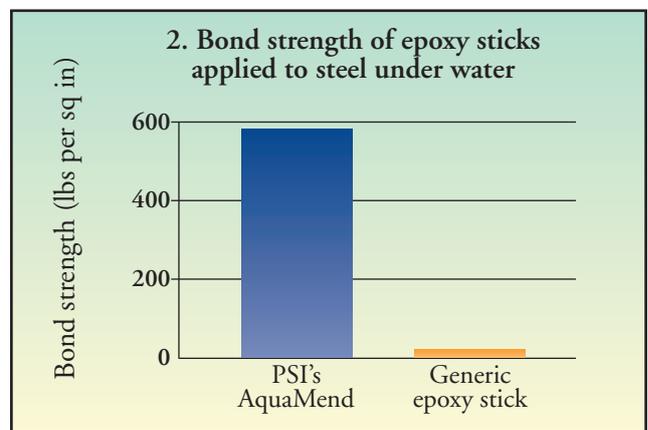
PSI's FastSteel putty stick actually contains steel, so an ordinary magnet picks it up. The competitive stick is sold for "everything", but has no steel, so it is not only less strong but cannot recognize the magnetic force.

of slightly more than two). See Chart #1.

One of the differences in FastSteel is that we formulate it with steel powder as a key ingredient. This increases its strength and makes the product magnetic. But it also increases the cost of the raw materials. At PSI we believe that the ultimate performance of the product is more important than a small difference in price.

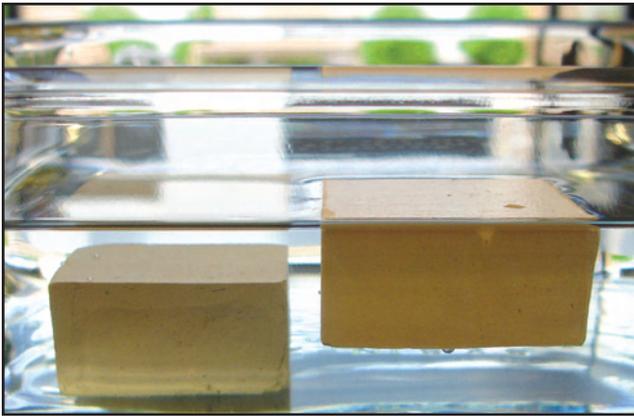
#### AquaMend®

One of PSI's most popular products is AquaMend, a product specifically engineered to provide maximum bond strength to such items as boat hulls and other fiberglass structures used in water, as well as sanitary ware and other substrates. Key to its popularity are the fact that it is formulated with fiberglass and its ability to develop a complete (and superior) bond *when applied underwater*. See chart #2.



#### QuikWood®

Another PSI favorite is QuikWood, engineered to repair most of the common problems

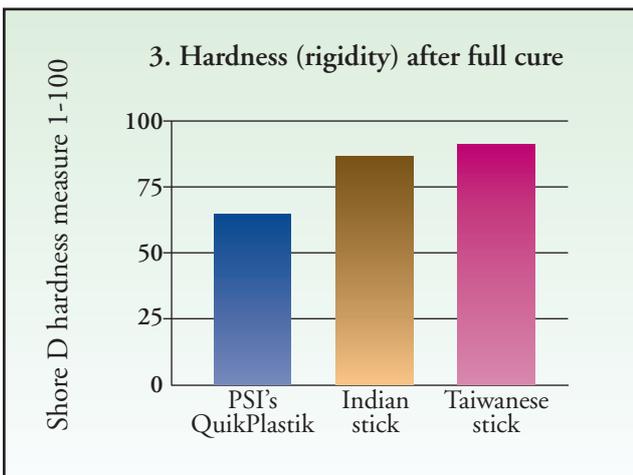


All PSI's putty sticks are designed for specific end uses. Here a competitor sinks to the bottom, while QuikWood, made specifically for wood, actually floats.

encountered with furniture, shelving, etc. It comes in several different colors to make matching the wood under repair easier. And, to provide a “seamless” repair, it is formulated to the same density as wood. Once cured, it can be sanded and painted as if it were wood. If one takes a variety of competitive products and puts them next to QuikWood in a bowl of water, the difference is instantaneous: the others sink, while QuikWood floats (see photo above).

### QuikPlastik®

A fourth PSI putty stick in terms of popularity is QuikPlastik, which offers several advantages over competitors. One of the more important is that it uses a unique polymer that no competitor (to the best of our knowledge) employs. This makes the finished, cured product more than 25% more flexible than competitive products, crucial in many applications that involve repairs to flexible materials (Chart #3).

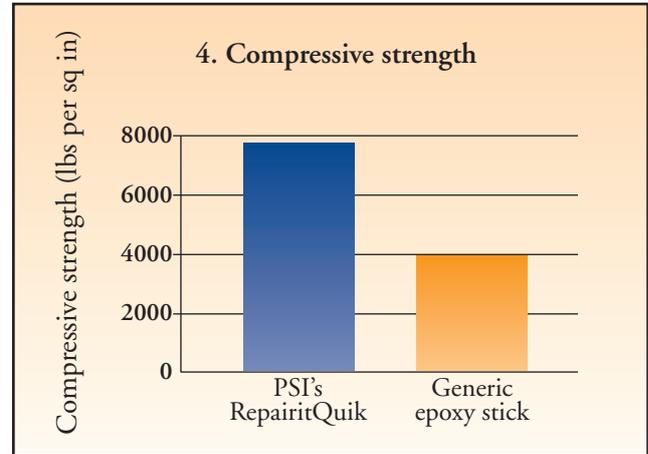


### RepairitQuik®

Over the years, some of our customers have told us they would like one stick that “does everything”. So we developed RepairitQuik which, while it may not contain the special addi-

tives that would make it magnetic, flexible or floatable as the job-specific putty sticks we manufacture, it still outperforms most of the competitive “all-purpose” putty sticks.

One of the most telling tests for all sticks, especially the all-purpose, is their ability to maintain their integrity even under significant



pressure. Here are the results of a test of RepairitQuik against the best-known generic in the United States, which shows RepairitQuik with twice the strength (see Chart #4).



PSI's laboratory at its new headquarters in Elverson, PA, is ten times more extensive than at its previous home.

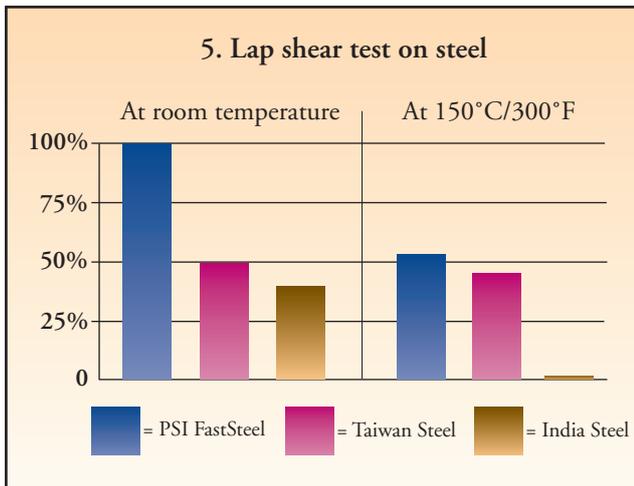
### But that's not all...

Additional tests run recently in the laboratory show some interesting results. Two more are summarized in the charts on the next page.

Both of these tests were run on the basis of Lap Shear, a standard measuring system in the industry used to determine the adhesive strength of a given material (putty stick) on a given surface at a given temperature.

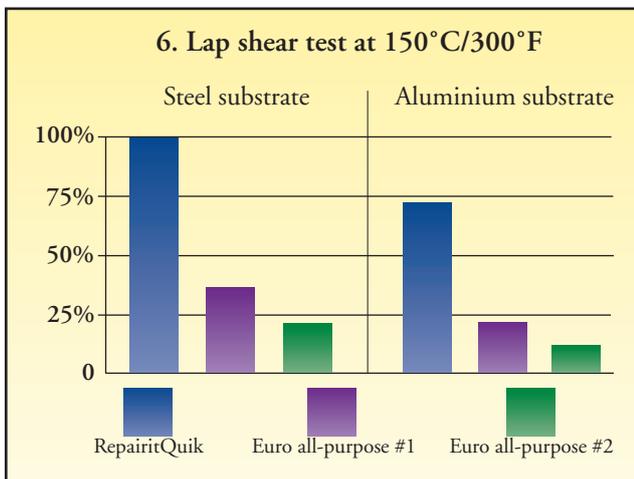
The first measures PSI's FastSteel against the Taiwanese and Indian sticks designed specifically for use on steel in terms of lap shear on a steel substrate at room temperature and at 150°C/300°F, and the differences are remarkable (see chart #5).

### 5. Lap shear test on steel



The second shows the results of three all-purpose sticks tested for lap shear: PSI's RepairitQuik, and two of Europe's most popular. The results are on steel and aluminium substrates at 150°C/300°F (see chart #6).

### 6. Lap shear test at 150°C/300°F



#### Worth remembering

In sum, there are putty sticks and there are putty sticks, but the differences among them can be striking — and can make the difference between a loyal, repeat customer and a disappointed user who never returns.

Key among the differences is shelf life.

Some of the cheaper putty sticks we've tested have begun to deteriorate after only a month, at which point they begin to harden and are increasingly difficult to mix and apply. And they do not work as well when they are in such a state of changing chemistry.



The lap shear testing machine in one of PSI's laboratories. Results are graphed by computer.

By contrast, all PSI-made putty sticks have a shelf life of at least two years (a conservative limit we use to make sure no one is disappointed), and they generally last a lot longer.

Another difference, frequently told to us by our customers: PSI putty sticks of all types are unaffected by the environment, and perform equally well whether in hot, cold, dry or humid conditions.

If you are in the market for epoxy putty sticks, we suggest you keep these comparisons in mind. PSI offers FastSteel, AquaMend, QuikWood, RepairitQuik, QuikPlastik, QuikCopper, QuikAluminum, and InstaCrete.

For more information on PSI's range of putty sticks, the test methods employed, or any questions regarding the category, please contact us at the addresses shown below.



Polymeric Systems, Inc., 47 Park Avenue, Elverson, PA 19520. Telephone: (610) 286-2500. Fax: (610) 286-2510. Email: sales@polymericsystems.com. In England contact Paul Ewings at +44(0) 1928 571000 or fax +44(0) 1928 71010. Visit PSI on the web at polymericsystems.com.

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