

In the Spotlight – Deliver Energy Savings and Save Customers Money by Using Loctite® Nordbak® Brushable Ceramic

What's New –

- Power Grab® Adhesive Simplifies Facility Maintenance
- Loctite® Insulating & Sealing Wrap Seals and Protects
- New Loctite® 2047™ High Lubricity, High Strength Threadlocker Combines Anti-Seize Lubricity with Locking Functionality
- Loctite® 2422™ and 2620™ High Temperature Threadlockers and Loctite® 5770™ High Temperature Thread Sealant Innovate Industry

Engage Our Services – Loctite® Pump Rebuild and Maintenance Workshop

Fun Fact – Loctite® Super Glue can now justifiably claim to be the strongest glue in the world.

In the Spotlight

Deliver Energy Savings and Save Customers Money by Using Loctite® Nordbak® Brushable Ceramic

How one water authority realized they could save hundreds of thousands of dollars each year by adding Loctite® Nordbak® Brushable Ceramic to their process. This is a summary of a recent article published in “Pumps & Systems” magazine.

The Monroe County Water Authority (MCWA) in Rochester, N.Y. delivers an average of 60 million gallons of drinking water to households each day using more than 100 centrifugal pumps. As part of an initiative aimed at reducing energy consumption, greenhouse gases and operations/maintenance costs, the MCWA examined the efficiency of their pumps. They found that in virtually every pump tested, efficiencies were often 20 percent or more below the original manufacturer's stated pump efficiencies.



As a result of these inefficiencies, the internal components of pumps operating at the least efficient rates were refurbished (rings, sleeves, seals, gaskets and bearings). Once returned to service, performance showed some improvement, but the pumps still ran significantly below the manufacturer's specifications for efficiency.

Next, the MCWA turned its focus to the severe tuberculation on the interior pump casings. These knob-like mounds of corrosion had built up on the interior walls of pumps and piping systems. This roughness on just a few feet of pump casing between the suction and the discharge flanges was found to make a significant difference in a pump's performance and efficiency.

Since sandblasting the interior pump casings would allow the quick return of corrosion and tuberculation, the team explored coatings for the interior surface. The product that they determined was the best fit for their application was NSF approved Loctite® Nordbak® Brushable Ceramic. The MCWA found in initial trials that pump efficiency was more or less restored to original manufacturer's specifications from the sandblasting and use of Loctite® Nordbak® Brushable Ceramic.

Based on these results, the MCWA applied for and received a grant from the New York State Energy and Research Development Authority (NYSERDA) to conduct further research on the use of ceramic epoxy coatings to increase pump performance and efficiency.

The MCWA found that traditional mechanical refurbishment alone recovered only about half of a pump's total lost performance and efficiency. To fully return each pump to (or above) the original manufacturer specifications required the sandblasting and coating of the interior pump casings with Loctite® Nordbak® Brushable Ceramic. With one pump alone, the result was more than \$17,000 in annual energy savings (assuming energy costs of \$0.085/kWh and \$10.00/kWh demand charge). Kilowatt hours (kWh) consumption would be reduced by approximately 82,000-kWh annually (which translates into a reduction of 11.8 passenger vehicles in annual greenhouse gas emissions.) The MCWA estimates that if all of its 100+ pumps were mechanically refurbished, sandblasted and coated, the MCWA could realize energy cost savings in excess of \$200,000 from its \$4 million annual energy budget.



If you would like to receive the full article that appeared in the November 2008 issue of “Pumps & Systems” magazine, please send your email request for LT-5316 to literature@loctite.com. In Canada, call 1-888-427-3676.

What's New

Power Grab® Adhesive Simplifies Facility Maintenance

Revolutionary Loctite® Power Grab® is a heavy duty, high strength, construction grade adhesive that grabs instantly with nine times the initial holding power of traditional construction adhesives. Ideal for interior and exterior repairs or building projects, Power Grab® remains firmly in place until it cures, yet may be repositioned for up to 15 minutes after application.



This unique adhesive eliminates the need for braces, nails and other fastening devices, saves time and money, and allows many tasks to be completed by a single worker. Loctite® Power Grab® can instantly hold a maximum vertical load of 20 pounds per square foot (10 grams per square centimeter) on a porous surface.

Water resistant and paintable, Loctite® Power Grab® bonds easily to porous and non-porous materials including concrete, brick, wood, stainless steel, ceramic, tile and most plastics. Capable of bonding to wet or frozen substrates, Power Grab® can be used for mounting signs, fabricating temporary or permanent structures, remodeling or repairing virtually any material used in a building, and for many other repair and building applications.

This adhesive meets or exceeds all relevant construction specifications such as ASTM D3498, AFG-01 and ASTM C557, and conforms to HUD UM60a. It also meets Greenguard Certification for indoor air quality.

For more information, call 1-800-LOCTITE or visit www.henkelna.com/powergrab.

ORDERING INFORMATION

Part#	Size
1210760	300 ml
1210759	825 ml

Loctite® Insulating & Sealing Wrap Seals and Protects

A non-sticking multipurpose wrap that quickly fuses to itself when stretched and wrapped around a surface, Loctite® Insulating & Sealing Wrap withstands extreme conditions – exposure to saltwater, acids, fuels, UV light and temperatures up to 500°F. It removes cleanly without residue and withstands harsh operating environments.

Loctite® Insulating & Sealing Wrap seals and protects against air and water leakage, corrosion and scratches. The product is ideal for electrical insulation, sealing repairs, wrapping and jacketing. With a tensile strength up to 700 psi and dielectric strength up to 400 vpm. Temperatures up to 500°F. The Wrap can be used for plumbing, marine, automotive, HVAC, electrical, and industrial maintenance and repair, and for an infinite range of everyday uses.



ORDERING INFORMATION

Part#	Size
1212164	1 inch x 10 feet

Available in a 1-inch by 10-foot roll, this Wrap can be stretched to three times its size. For more information, call 1-800-LOCTITE or visit www.henkelna.com/loctite.

Typical Applications:

- Industrial
- Automotive Repair
- Marine
- Plumbing
- Electrical
- And More!



What's New (cont'd.)

New Loctite® 2047™ High Lubricity, High Strength Threadlocker Combines Anti-Seize Lubricity with Locking Functionality

It's a familiar story in equipment maintenance a bolt breaks, production comes to a screeching halt and you lose at least six hours of production due to maintenance time. Now imagine having to make that repair by breaking a welded bolt, replacing it and welding in a new bolt—all while on a mountain slope in a heavily-wooded forest. That used to be the only option for logging applications. Until now.

With the introduction of Loctite® 2047™ High Lubricity, High Strength Threadlocker, serviceability and performance are maximized for heavy industry equipment applications.

How did Henkel do it? By developing an entirely new chemistry—not just another threadlocking product—that offers functionality once considered impossible. Loctite 2047 combines the functional attributes of anti-seize lubricity with high-strength locking to resist bolt loosening due to vibration for 7/8" to 2" bolts.

“Because there wasn't an existing solution, we worked with the customer to create a completely new product,” said Robert Dunkel, Director of Technical Service. “And, the results have been very exciting for our customers, the industry and the Loctite® brand.”

For more information about Loctite® 2047™ High Lubricity, High Strength Threadlocker, contact us at 1-800-LOCTITE or visit us online at www.henkelna.com/mrnew.

Loctite® 2422™ and 2620™ High Temperature Threadlockers and Loctite® 5770™ High Temperature Thread Sealant Innovate Industry

In high-temperature manufacturing environments, heat resistance has typically been the Achilles heel of fasteners and pipe fittings. However, Loctite's newest line of high-temperature threadlockers and thread sealant can take the heat—for continuous temperatures up to 650°F and 530°F, respectively.

Loctite® 2422™ High Temperature, Medium Strength Threadlocker, provides unmatched heat resistance and can be disassembled for service with hand tools. The Loctite® 2620™ High Temperature, High Strength Threadlocker offers permanent grade strength for high-vibration environments. Both products have been proven successful in extreme-temperature manufacturing applications, such as cement kilns and blast furnaces in steel mills.

Loctite® 5770™ High Temperature Thread Sealant, also the first and only of its kind in the market, has already proven long-term durability in some of the most heat-intense applications. When a steam boiler manufacturer needed a solution to reduce leaks in pipe fittings, Loctite® 5770™ was the first and only product to keep fittings locked together and in service.

The innovative chemistry of these new Henkel threadlockers and thread sealant has pushed the range of heat resistance beyond any other product by 200°F. Contact us at 1-800-LOCTITE or visit us online at www.henkelna.com/mrnew for more information.



Engage our Services

Loctite® Pump Rebuild and Maintenance Workshop.

Most industrial centrifugal pumps carry a significant capital equipment value. Therefore it is important to extend their useful lives and ensure that they run efficiently and reliably. Proactive maintenance can reduce the risk of breakdowns, increase pump reliability and longevity, and extend the MTBF (Mean Time Between Failure).

Designed by Henkel to enhance maintenance techniques, solve common failures, and improve pump reliability, this hands-on workshop is focused towards personnel who are responsible for pump maintenance and reliability.

Loctite® Pump Repair and Rebuild Workshop Features:

- * Review of Common Pump Failures
- * Root Cause Failure Analysis
- * Identification of Loctite® Solutions
- * Review of Loctite® Technologies
- * Hands-on Demonstration
- * Product Selection Criteria



Engage Our Services (cont'd.)

By applying the identified product solutions and techniques learned in a Loctite® Pump Workshop, your personnel will have the knowledge and the tools to do the following:

- * Increase pump reliability
- * Extend Mean Time Between Failure (MTBF)
- * Prevent common failure modes
- * Increase pump efficiency and ensure that a pump run closest to its Best Efficiency Point (BEP)
- * Eliminate leaks
- * Eliminate erosion and protect against chemical attack
- * Ease disassembly of parts, ensuring consistent disassembly
- * Reduce component consumption
- * Ensure that alignment is maintained
- * Prevent seizure of critical components
- * Restore and rebuild parts

For training outline and details, order the *Loctite® Industrial Pumps Workshop Brochure* (LT-4056) or contact your local Loctite® Product Specialist to schedule a workshop.

Fun Fact

Loctite® Super Glue can now justifiably claim to be the strongest glue in the world. Just nine drops were sufficient to convince the jury: The Guinness World Record™ for the “heaviest vehicle lifted with glue” now goes to Loctite®. With a black pickup truck giving a piggyback ride to an additional city car, Loctite® Super Glue secured an amazing overall weight of exactly 5.02 tons – almost one ton on top of the old record.



The product used for this astonishing exercise is not an exotic solution from outer space. Actually it is classic Loctite® Super Glue liquid, which can be bought in stores all over the world. Loctite® Super Glues provide very strong, fast and reliable bonding solutions for everyday use and for a broad variety of materials. Loctite® offers a complementary product range. Among these products, just to name a few, are: Loctite® Super Glue liquid, the classic solution for fast and strong bondings; Loctite® Super Glue Gel, especially convenient because of its no-drip features; and Loctite® Ultra Gel, a rubber-infused Super Glue providing bonds that are even shock- and water-resistant. Next to the classic Super Glue tube, Loctite® also offers special applicators that ensure ultimate dose control (Loctite® Super Glue Control) or come with a brush solution ideal for applications on larger surfaces (Loctite® Super Glue Brush-on).

New Literature (Spring 2009)

2009 Adhesive Sourcebook

(LT-3355) Your source for Loctite® products for design, assembly, manufacturing and maintenance.

Concrete Solutions Sell Sheet

(LT-4728) A complete line of products to keep your facilities looking good and performing great.

Do It Right User's Guide

Revised (LT-1475) The “when, where and how” to use Loctite® maintenance products.

Insulating & Sealing Wrap

(LT-5289) Non-sticky, self-fusing, multipurpose wrap.

Maintenance Solutions Guide

Volume 10 (LT-3722) Comprehensive guide for overcoming maintenance problems and preventing breakdowns and failures.

Problem Solver Slide Rule

Revised (LT-776) Easy-to-use product selector.

Threadlocking User's Guide

Revised (LT-4985) Everything you need to know to ensure a reliable threaded assembly.

To order literature, e-mail us at literature.marcom@us.henkel.com or call (888) 427-3676.

Upcoming Events

HFC 2009 (Hydrogen & Fuel Cell)

Monday, June 1- Wednesday, June 3 2009; Booth #203
Vancouver, BC

MDM East

Tuesday, June 9-Thursday, June-11 2009; Booth #1942
Javits Center, New York, NY

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