

# LOCTITE®



## Water Utilities Industry Solutions to Rebuild, Repair and Protect Industrial Equipment



### Henkel - Solutions for today – and tomorrow

Henkel is a world market leader bringing total solutions to OEMs, to MRO facilities and for aftermarket repair needs. This makes Henkel products the professionals choice for applications from a diverse technology portfolio. Henkel customers benefit from the company's decades of experience as a technology innovator, as well as unparalleled service and support.

#### Powerful Solutions meet all needs

As a Solution Provider, Henkel offers much more than outstanding products – it provides powerful solutions based on innovative technologies and concepts. Multiple functionalities deliver benefits which help customers respond effectively to the problems in ensuring safety and durability.

#### Training & Seminars – Making the most of Henkel products

At Henkel, customer training is ongoing – because even high-quality products can be only as good as the people who use them. We offer on site product and maintenance training and can provide effective solutions on all maintenance issues. Solutions that will save you time and money and increase the reliability of your equipment. Please call us for an appointment.



For more information on the Henkel portfolio where you can download catalogues, data sheets, technical papers, etc. please visit [www.henkel.com](http://www.henkel.com)



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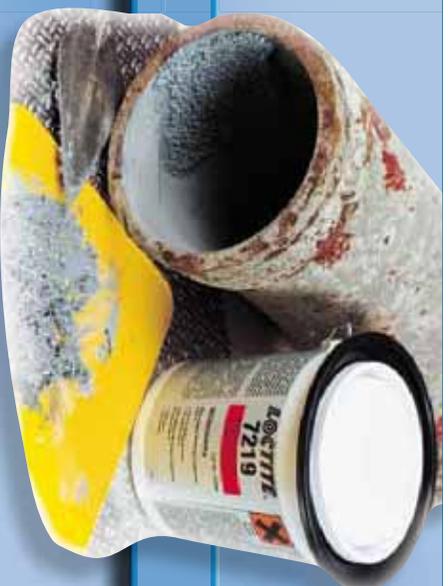
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The data contained here is only intended as a reference. Please contact your local Henkel Technical Support Group for assistance and recommendation on specifications for these products.

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## Water Utilities Product Information List

Application	Product no.	Influent structure	Bar screen	Auger screw sress	Grit shamber	Clarifiers	Underground equipment & facilities	Centrifuge and power plants	General maintenance
Metal filled epoxy	3475					•			
Metal filled epoxy	3472						•		
Mineral grease *	8105		•				•		
Retaining	620							•	
Retaining	638							•	
Retaining	668			•			•	•	
Retaining	660			•				•	•
Retaining stick	648						•	•	•
Rust converter	7500		•	•					•
Silicone	5366					•			
Superior metal	3478		•	•	•	•	•	•	•
Threadlocker	222					•		•	
Threadlocker	243					•	•	•	•
Threadlocker	246					•	•	•	
Threadlocker	2701					•	•	•	•
Threadlocker	290			•		•			
Threadlocker stick	248					•		•	
Threadsealant	5331				•				
Threadsealant	542			•			•	•	•
Threadsealant	577				•	•			•
Threadsealant	572				•			•	
Threadsealant	55						•		
Threadsealant stick	561			•	•		•	•	
Universal cleaner	7840						•		•
Wearing compound	7226			•			•		
Wearing compound	7219			•		•			
Wearing compound	7222			•		•			

\* (Not available in the UK)

## Properties Chart



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Application	Product no.	Influent structure	Bar screen	Auger screw press	Grit chamber	Clarifiers	Underground equipment & facilities	Centrifuge and power plants	General maintenance
Activator for anaerobics	7649			•	•	•	•	•	•
Gasket remover	7200								•
Anti seize G5A	8007 / 8008 / 8065		•	•	•			•	•
Anti seize, marine grade	8023			•					
Brushable ceramic grey	7227		•	•	•	•		•	
Brushable ceramic white	7228	•	•	•	•	•		•	
Chain lubricant	8101		•	•					
Chemical resistance coating	7221	•	•			•	•		
Cleaner	7063	•	•	•	•	•	•	•	•
Concrete repair	High performance quartz	•		•			•	•	
Concrete repair	Magna crete		•						
Instant bonding	401								•
Instant bonding	4860								•
Instant bonding	480								•
Instant bonding for rubber	406								•
Epoxy, adhesive	3430			•		•			•
Epoxy, filling material	3450					•		•	•
Epoxy, stick	3463				•	•		•	•
Freeze & Release	8040								•
Gasketing	518				•	•	•		
Gasketing / Quick gasket	5910				•				•
Gasketing stick	548				•				•
Hand Cleaner	7850								•
Hand Cleaner	7855								•
High performance grease *	8102		•				•		•
Kit	0-Ring-Kit					•	•	•	•
Metal filled epoxy	3479					•			

\* (Not available in the UK)



## Loctite® Solutions in Water Utilities Industry

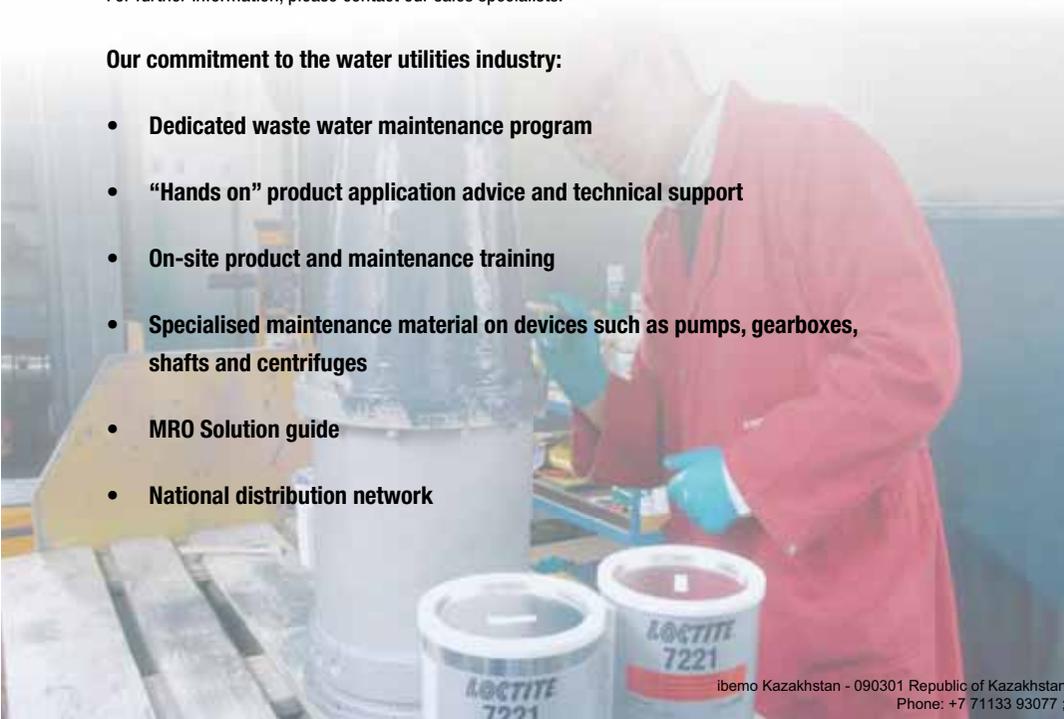
At Henkel, we understand plant maintenance – and the problems that you face in ensuring reliability, safety and durability. Henkel engineers are active partners, specialized in providing Loctite® product solutions that are going to help you repair and extend the life of equipment and protect both mechanical and civil assets.

Waste water engineers know about the importance of equipment reliability and predictability. It is their responsibility to keep the plant running 24 hours a day, 7 days a week without downtime. Whether the plant is functioning at full capacity or not, the effluent never stops. Henkel offers a wide range of Loctite® products, services and training to help water utilities industries to repair and maintain the equipment and keep the plant running - from concrete repair to extending the operating life of devices like pumps, gearboxes and centrifuges.

This brochure shows some examples of successful applications of Loctite® products in the water utilities industry and gives you an overview of what can be done with our products. For further information, please contact our sales specialists.

### Our commitment to the water utilities industry:

- **Dedicated waste water maintenance program**
- **“Hands on” product application advice and technical support**
- **On-site product and maintenance training**
- **Specialised maintenance material on devices such as pumps, gearboxes, shafts and centrifuges**
- **MRO Solution guide**
- **National distribution network**



### Influent Structures

Flow Control mechanisms and influent structures can be rebuilt and protected from damaging corrosion and erosion. Loctite® Wearing compounds and Brushable Ceramics can rebuild worn parts and form a smooth, corrosion resistant coating.



**Problem:** Worn, corroded and damaged parts are less effective and prone to leaks and further damage.

**Solution:** Worn butterfly valves are abrasive blasted, and a thin coat of Loctite® 7228 Brushable Ceramic is applied to the surface. The rough and corroded edges are then reprofiled with Loctite® Nordbak® 7222 Wear Resistant Putty before a final coat of Loctite® 7227 Brushable Ceramic (grey) is applied.

**Your advantage:** As a result the valve was returned to service within one day eliminating further downtime.

### Bar Screens

Continued screening of small and large debris can result in damage to the bar screen and erode bar screen parts. In addition, the heavy moisture environment present around bar screens can lead to corrosion and deteriorated parts.



**Problem:** Corroded parts and damaged screens can lead to longer maintenance times and reduced part life.

**Solution:** Loctite® threadlockers and retaining compounds prevent corrosion between threaded parts and allow for increased reliability and decreased downtime. In addition, the components of the bar screen can be coated with Loctite® Brushable Ceramic to repair the damaged surface and prevent clogging.

**Your advantage:** The bar screen lasts longer and is protected from corrosion. This leads to a reliable increased performance.

### Grit Chambers

Constantly abraded, the paddles of the grit chambers are prone to wear and abrasion by the debris in the raw sewage. Another problem is the build up of grease on the paddles and the spindle. These issues can be prevented by using Loctite brushable ceramic. The smooth, low friction surface will resist abrasion and grease build up.



**Problem:** Highly abrasive grit damages pump impellers and housings. Grease can build up on the mixing paddles, and grit can damage the mixing mechanisms.

**Solution:** Following repair with metal rebuilding epoxies, Loctite® Brushable Ceramic wearing compounds can protect the pump parts and grit chamber mixers against the damaging effects of grit abrasion.

**Your advantage:** The parts can be used for longer and withstand mechanical attack.



## Clarifiers

Continuous operating requirements create a demand for parts that are not subject to vibrational loosening or require repair or rebuilding.

**Problem:** Numerous fasteners will loosen in continuous operation service, requiring periodic shut downs for surface repairs and retightening of the threaded assemblies on clarifier parts.



**Solution:** Loctite® 243 Medium Strength Threadlocker and Loctite® 290 Wicking Grade Threadlocker prevent vibrational loosening and expensive down time to repair or retighten the fasteners. Using Loctite® wearing compounds on scrapers and parts prone to abrasion also extends the operational life of equipment.

**Your advantage:** The overall operational life will increase.

## Facilities and Aeration

A leakage in the pipework system can be very costly and reduces the efficiency of the plant due to high and avoidable energy costs. The usage of anaerobic pipe sealants prevents leakages constantly and cost efficient.

**Problem:** Costly leaks can damage plant areas and result in high clean up and material repair costs. Leaks in the air line system are very costly because of increased power consumption.



**Solution:** Loose fasteners are eliminated by using Loctite® 243 Oil Tolerant Threadlocker. In addition, costly hydraulic or pneumatic leaks are eliminated by using Loctite® 542 Tread Sealant.

**Your advantage:** Reduced energy costs and increased reliability of pipe systems.

## Savings Potential in Centrifuge Repairs

### Challenge:

A centrifuge is one of the most important machines in a water utility plant. It is needed for dewatering waste slurries arising from industrial processing or from raw water treatment of municipal sewage.

**Problem:** The bowl and the conveyor of decanter centrifuges are subjected to wear and chemical attack and need to be reworked at certain service intervals.

### Solution:

Coat entire outside surface of the bowl with Loctite® Nordbak® Chemical Resistant Coating. In areas where chemical attack of the bowl is combined with erosion and abrasion, like the bowl interior or the complete conveyor, the component needs to be reworked to the original dimensions with Loctite Wear resistant compounds and coated with Loctite® Nordbak® 7227 /7228 Brushable Ceramic Grey / White.

### Your advantage: Reduction of cost

- Reduce component consumption by salvaging and extending the life of centrifuge bowl and conveyor. After the repair the components are protected from wear and chemical attack.
- Depending on the actual condition of the bowl, cost savings in the range from 40% up to 75% can be achieved by repairing the centrifuge bowl and conveyor with Loctite® Nordbak® Polymer Composites, as compared to the costs for replacing the parts.

A typical repair of a bowl and conveyor includes: Cleaning, grit blasting, application of Polymer Composites, replacement of components (bearing, etc.), balancing and reassembly of the centrifuge.



Before repair



After repair

## General Maintenance

Machines are continually subject to heavy vibration, shock, high temperatures and corrosion.

Nuts and bolts shake loose; hydraulic and pneumatic systems leak; bearings fail; and equipment break down resulting in costly repairs and costlier downtimes.

**Innovative Solutions:** The Loctite® range can help you create savings in maintenance costs for almost all of the equipment used in a water utilities plant by minimising unscheduled breakdowns and improve equipment reliability.

You will find that using our products helps restore damaged parts and equipment to quickly, conveniently and efficiently.

Please choose from our product offer in our MRO solution guide.

