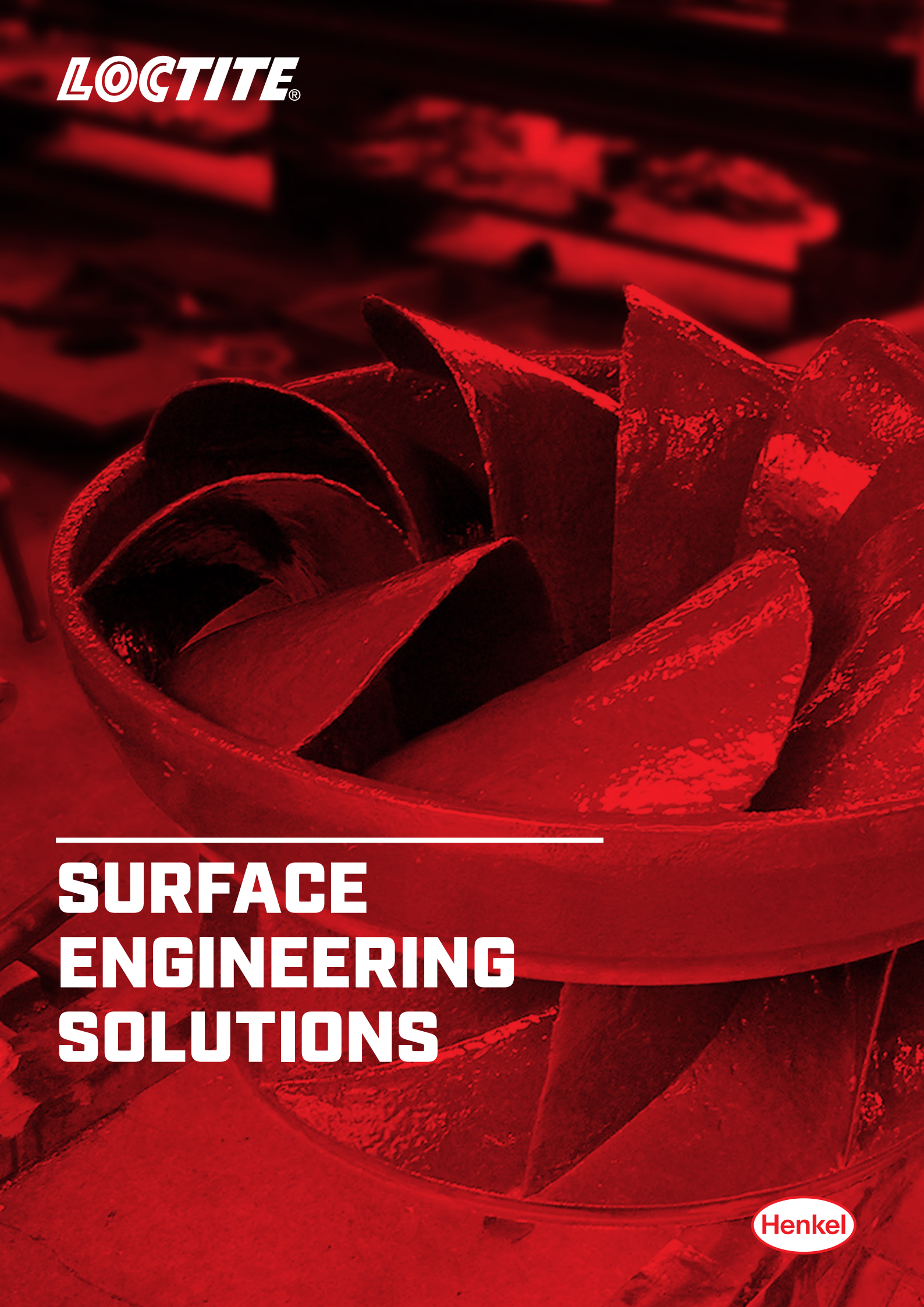
LOCTITE®



SURFACE ENGINEERING SOLUTIONS

Henkel

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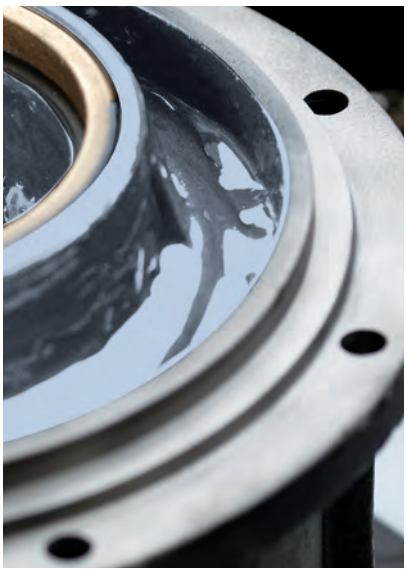

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Henkel's Solutions for All Surface Engineering Needs

THE CHALLENGE

Protecting industrial equipment and machinery is crucial for any kind of harsh industrial environments. Industrial parts are very often worn out by wear, abrasion, erosion, chemical attack, corrosion and mechanical damage. Not properly protecting parts impairs their efficiency and initial functionality and safety at work can be impacted, leading to costly acquisition of new parts.

HENKEL'S SOLUTION

At Henkel, we understand plant maintenance – and the challenge you face in ensuring reliability, safety and durability. We offer you an extensive network of experts, knowledge and innovative technologies to master this challenge.

Partner with us to benefit from our competencies and to achieve the best results for your maintenance and repair needs:

INCREASE RELIABILITY

of worn parts by restoring them to a serviceable condition

IMPROVE SAFETY

by preventing occupational accidents due to part failure

SAVE TIME

by minimizing downtime and extending part life

REDUCE COSTS

by avoiding part replacement and reducing spare-part inventories

This brochure is designed to give you a detailed overview of our extensive product portfolio for surface engineering needs. To ensure that you get the best solution for your maintenance need, please contact a Henkel Engineer for technical consultancy.

Whatever You Rebuild, Repair and Protect...

...Find the Right Solution!

Expert Training

› Maintenance Workshop Training from Henkel provides maintenance engineers with the necessary skills, knowledge and tools to reduce plant downtime and drive down maintenance costs.

› Expert Training for Surface Engineering Needs: page 6

Technical Consultancy

› Our products have been designed to meet the specific challenges of your industry. With an extensive network of sales and technical engineers around the world we offer you professional consultancy to find the best solution for your specific surface engineering needs.

› Technical Consultancy for Surface Engineering Needs: page 7

Cleaning & Pretreatment

› Correct surface preparation is the most important factor affecting the total success of any surface treatment. Without correct surface profile and surface cleanliness coating systems will quickly fail. To ensure high-quality applications we offer superior cleaning and pretreatment products like surface cleaners and corrosion inhibitors.

› LOCTITE® Cleaning & Pretreatment Products: page 8

Your Partner for Maintenance and Repair Solutions

Henkel offers you more than state-of-the-art adhesives, sealants and surface treatment products. We give you access to our unique expertise covering the entire value chain. So whatever you rebuild, repair or protect, with our technical consultancy and expert training we are able to offer you specific solutions for your industry and your maintenance needs.

Filling & Protecting

› To permanently repair, rebuild and restore damaged machinery, equipment, floors and walls requires specific products to put worn parts back to a serviceable condition. We offer a range of putty and pourable formulations for aluminum, steel and concrete.

› LOCTITE® Metal Repair Solutions: page 10
› LOCTITE® Concrete Repair Solutions: page 10

Coating

› Protecting machinery and equipment against external attack is a challenge in any industry. Protective coatings and compounds offer maintenance solutions to the problems caused by wear, abrasion, erosion, chemical attack and corrosion. Our products are available in sprayable, brushable and trowelable formulations.

› LOCTITE® Protective Coatings & Compounds: page 14

EXPERT TRAINING

LOCTITE® Maintenance Workshop Training from Henkel provides maintenance engineers with the necessary skills, knowledge and tools to reduce plant downtime and drive down maintenance costs.

The workshops are suitable for all engineers. Conducted on the customer's premises, training can be tailored to meet individual needs through a plant tour and pre-workshop survey. Training includes materials and a review of the common causes of plant and equipment failure and their prevention.

Contact Henkel now for more details and to arrange training for your maintenance team.

TECHNICAL CONSULTANCY

Our highly experienced Henkel Engineers are committed to providing the highest level of technical support and assistance in the industry. Working closely with local industrial suppliers and selected engineering service agents, our Application Engineers provide full process support – from maintenance assessment, performance and analytical testing to implementation of solutions – to find the right solutions for your needs.

For your surface engineering needs we offer you technical consultancy in:

- Surface cleaning
- Surface preparation
- Surface pretreatment
- Selecting repair products
- Selecting surface protection products
- Application process
- Control recommendation
- Application tips

CLEANING & PRETREATMENT

Correct surface preparation is crucial for the successful application of both metal repair products and protective coatings and compounds. Good surface preparation will:

- Improve adhesion to parts
- Prevent corrosion between the surface and product used
- Extend maintenance intervals

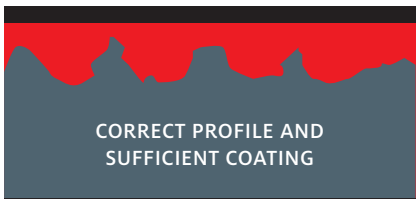
The two most important factors for a successful application are surface profile and surface cleanliness.

1. SURFACE PROFILE

Improve adhesion by increasing surface area and providing a keyed anchor pattern.

Surface profiles vary depending on the type and size of abrasive particles impacting the surface. A bad surface profile provides poor anchor pattern, resulting in adhesive failure.

Correct profile but insufficient coating causes surface peaks which may be exposed to corrosion and / or contamination.



It is critical to achieve the correct profile depth and product coating thickness. LOCTITE® product applications require a minimum 75µm surface profile. Only with this anchor pattern and a sufficient coating layer, can maximized coating adhesion be guaranteed.

COATING SURFACE

The best way to achieve the correct surface profile is abrasive blasting. It not only removes visible surface rust and contaminants, but also creates the ideal surface roughness for bonding. See following table for surface specifications.

Surface preparation grades of blast

RUST GRADE

A	Steel with mill scale layer intact; very minor or no rusting
B	Steel with spreading surface rust and the mill scale commenced flaking
C	Rusty steel with mill scale layer flaked and loose or lost but only minor occurrence of pitting
D	Very rusty steel with mill scale layer all rusted and extensive occurrence of pitting

BLAST CLASS

1	(SP-7/N4)	Very light over clean with removal of loose surface contaminants
2	(SP-6/N3)	Substantial blast clean with widespread, visible contaminant removal and base metal color appearing
2,5	(SP-10/N2)	Intensive blast clean leaving shading grey metal with only contaminates
3	(SP-5/N1)	Complete blast clean with consistent metal color all over and no visible contaminants

2. SURFACE CLEANLINESS

Chemical contaminants that are not readily visible, such as chlorides and sulphates, attract moisture through coating systems resulting in premature failure. For this reason it is fundamentally important to clean all substrates with an industrial-strength cleaner and degreaser. Heating the device before cleaning can facilitate the removal of contaminants.

LOCTITE® SF 7840™ – Cleaner and degreaser

- Before abrasive blasting
- Meets the requirements of a wide range of industrial cleaning applications
- Biodegradable, solvent-free, non-toxic and nonflammable, diluted with water (Rated USFA-C1)

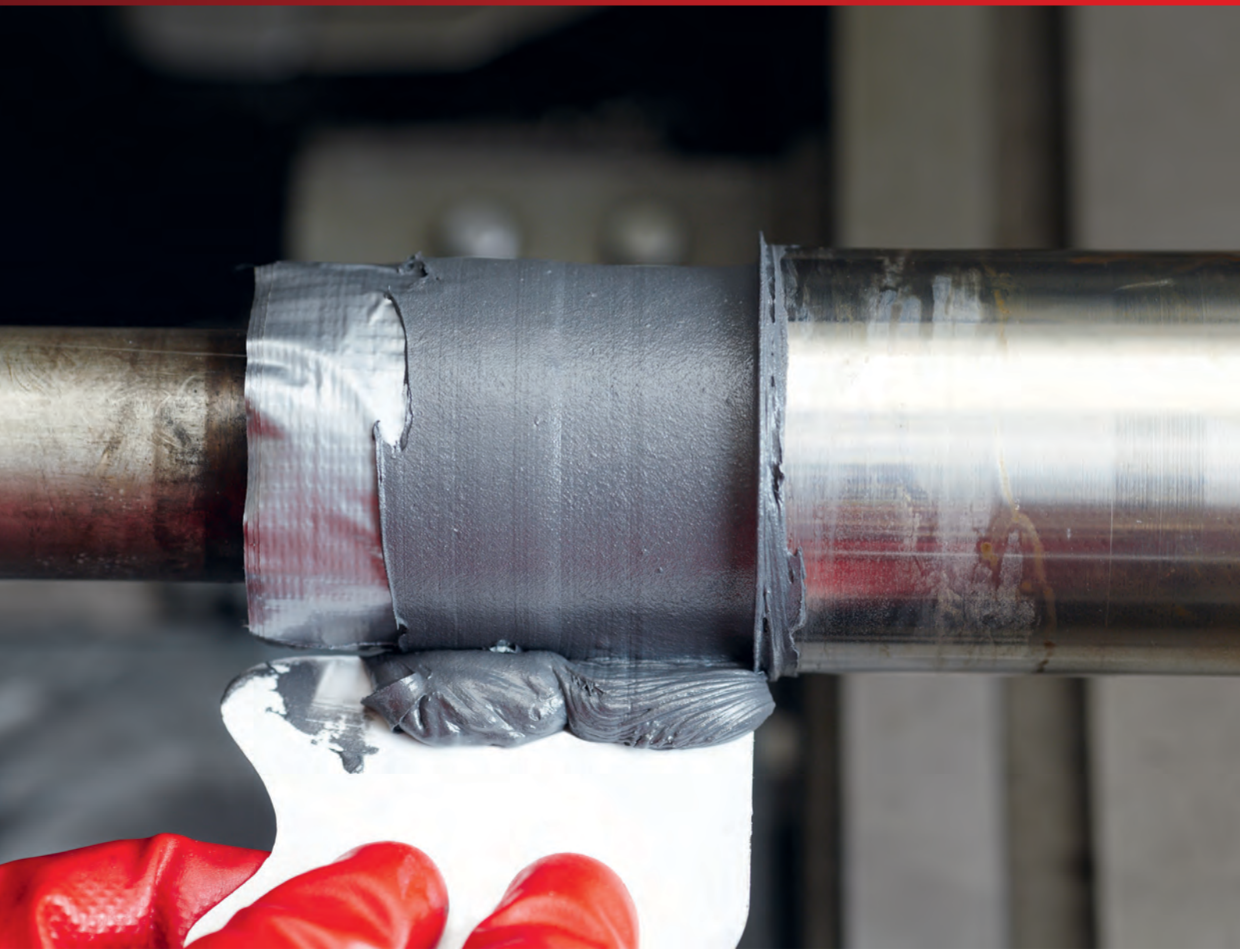
LOCTITE® SF 7063™ – Parts Cleaner

- Solvent-based general parts cleaner
- Ideal for use prior to adhesive bonding and sealing applications
- Leaves no residue
- Removal of most greases, oils, lubrication fluids, metal cuttings and fines from all surfaces

LOCTITE® 7515™ – Flash rust prevention

- Pretreatment on large surfaces to avoid any flash rust
- Easy and fast to apply on freshly blasted surface steel
- Increases surface working time up to 48 hours

METAL AND CONCRETE SURFACES



LOCTITE® metal repair compounds are designed to repair, rebuild and restore worn metal parts without the need of heat or welding. Typical applications include cracks in housings, worn keyways in shafts and collars, worn cylindrical shafts, etc.

LOCTITE® concrete repair products are designed to guarantee fast, reliable and long-lasting repairs. They bond to concrete, wood, glass, steel and other construction materials. Typical applications include ramps and loading areas, support beam and footer repairs, bridge decking and supports, concrete bunds and walls etc.

Why choose LOCTITE® Metal Repair Solutions?

Traditional repair methods such as hard face welding are time-consuming and expensive. Alternatively, LOCTITE® metal-filled compounds are easily applied and offer superior compressive strength and protection qualities.

Key benefits:

- Low-shrinking
- Can be drilled, tapped, or machined after cure
- Superior adhesion to metal, ceramic, wood, glass and some plastics
- Excellent resistance to aggressive chemicals
- Choice of mild steel, aluminium or non-metalic fillers
- Create durable repairs

LOCTITE® 3472™ pourable steel-filled, self-levelling 2K-epoxy

Why choose LOCTITE® Concrete Repair Solutions?

Traditional methods such as repairing floors or walls with conventional concrete need extensive time for curing. Alternatively, LOCTITE® concrete repair products are easily mixed, applied and cured after 45 minutes.

Key benefits:

- Easy to mix and apply
- Can be applied at temperatures even below 0°C
- Can be applied on damp surfaces
- Does not shrink or crack
- Reduces repair time, labor costs and downtime
- Chemical resistant
- Impact resistant
- Can be colored with standard cement coloring powders

LOCTITE® PC 9410™ and LOCTITE® PC 7204™ High Performance Quartz: quicker and safer than conventional concrete.

CLEANING & PRETREATMENT

REPAIR OR REBUILD DAMAGED PARTS

What material are you filling?

Steel

	Pourable	Putty		Kneadable Stick
Solution	LOCTITE® EA 3472™ Steel Filled Castable Epoxy	LOCTITE® PC 3471™ Steel Putty	LOCTITE® EA 3473™ Fast Set Steel Putty	LOCTITE® EA 3463™ Metal Magic Steel
Color	Grey	Grey	Grey	Dark Grey
Maximum Temperature	225°F (107°C)	225°F (107°C)	200°F (93°C)	250°F (121°C)
Working Time*	25 min.	30 min.	3 min.	3 min.
Cure Time*	6 hrs.	6 hrs.	10 min.	10 min.
Compressive Strength	13,500 psi	11,100 psi	10,800 psi	12,000 psi
Chemical Resistance				

Additional Products

Name	*Item No.*	*Pkg. Size*
LOCTITE® EA 3471™ Stainless Steel Putty	97443	1 lb. kit
LOCTITE® PC 3965™ Fast Set Steel Epoxy	96604	50 ml cart.
LOCTITE® EA 9480™ Underwater Repair Epoxy	82093	4 oz. stick
LOCTITE® MR 2000™ Putty	95724	8 oz. can

*at 77°F (25°C)

LOCTITE® EA 3472™ Steel Filled Castable Epoxy

High steel content. Pourable liquid filler used for making fixtures and molding.

ABS Approved.

P/N	Package Size
229175	500 g kit

LOCTITE® PC 3471™ Steel Putty

High steel content putty. Recommended for repairing and rebuilding worn steel components, such as bearing and fan housings.

ABS Approved.
CFIA Listed.

P/N	Package Size
229176	500 g kit

LOCTITE® EA 3473™ Fast Set Steel Putty

A fast curing version of steel putty. Recommended for repairing pipes and other emergency repairs.

ABS Approved.
CFIA Listed.

P/N	Package Size
229174	500 g kit

LOCTITE® EA 3463™ 10 minute repair epoxy

Kneadable, two-part paste. Working time is 3 minutes – sets in 10 minutes. Adheres to damp surfaces. Can be drilled, filed and painted. Ideal for emergency sealing of leaking tanks and pipes. Smooths welds, repairs small cracks in castings and fills oversized bolt holes.

NSF/ANSI 61 Certified.

P/N	Package Size
265628	114 g

	Aluminum		Concrete	
High Performance Chemical Resistance	Pourable	Putty	Reliable and Long-lasting Repairs	
LOCTITE® EA 3478™ Superior Metal	**LOCTITE® EA 3475™**	**LOCTITE® EA 3479™ Aluminum Putty**	**LOCTITE® PC 9410™**	**LOCTITE® PC 9416™**
Grey	Grey	Grey	Grey	Grey
250°F (121°C)	248°F (120°C)	374°F (190°C)	2000°F (1,093°C)	230°F (110°C)
20 min.	40 min.	35 min.	15 min.	30-35 min.
6 hrs.	6 hrs.	6 hrs.		1 hr.
18,000 psi	10000 psi	13,000 psi	13,000 psi	13,100 psi
	Excellent	Excellent	Fair	Good

LOCTITE® EA 3478™ Superior Metal

Formulated with fine alloy particles for high compressive strength and chemical resistance. Recommended for use on all metals. Outstanding compressive strength, chemical resistance, non-rusting.

CFIA Listed.

P/N	Package Size
680035	1 kg kit
2041672	453 g kit

LOCTITE® EA 3475™

Repairs aluminium castings, damaged or worn aluminium parts and stripped aluminium threads. A non sagging, heavily reinforced, two component epoxy filled with aluminium powder. Easily mixed and moulded to form odd shapes if required. Cures to a nonrusting, aluminium like finish.

ABS Approved.

CFIA Listed.

P/N	Package Size
229173	500g kit

LOCTITE® EA 3479™

Rebuilds and repairs worn & damaged metal parts in high operating temperature applications. A non sagging, heavily reinforced, two component epoxy filled with aluminium powder. Easily mixed and moulded to form odd shapes if required. Cures to A nonrusting, aluminium like finish.

ABS Approved.

P/N	Package Size
195826	500g kit

LOCTITE® PC 9410™ (Known as LOCTITE® Fixmaster® Magna-Crete™

This two-component magnesium phosphate cement sets rapidly and has a very high early strength. Ideal for road and aircraft runway repairs, which can typically be driven over after 45 minutes. It bonds to new and old concrete, as well as most construction materials including wood, glass and steel. No water additive, so it can be applied at temperatures as low as -15°F (-26°C).

CFIA Approved.

P/N	Package Size
235572	1 gal. kit

LOCTITE® PC 9416™

3-part, non-shrinking 100% solids liquid epoxy based system for repairing holes in floors, spalled areas, ramps, stairs, cracks in floors and for use in grouting applications. Bonds to old and new concrete and provides greater strength and chemical resistance.

CFIA Approved.

P/N	Package Size
235632	10 lb. kit

COATING

LOCTITE® Protective Coatings and Compounds offer maintenance solutions to problems caused by wear, abrasion, erosion, chemical attack and corrosion. They are available in trowelable, brushable and sprayable formulations with special fillers for tough conditions and are ideal for all those large-scale repairs that have to last. Typical applications for this product range include air ducts, pumps, heat exchangers, centrifuges, impellers, fan blades, cyclones, pipes, tanks, retention areas, etc.

LOCTITE® Protective Compounds provide excellent wear resistance and superior adhesion. Filled with ceramic particles, specific to the different service conditions, they protect against abrasion and extend the service life of a wide range of plant areas and plant equipment. Their key advantage is their capability to create a sacrificial and renewable working surface, protecting the structural integrity of the original substrate.

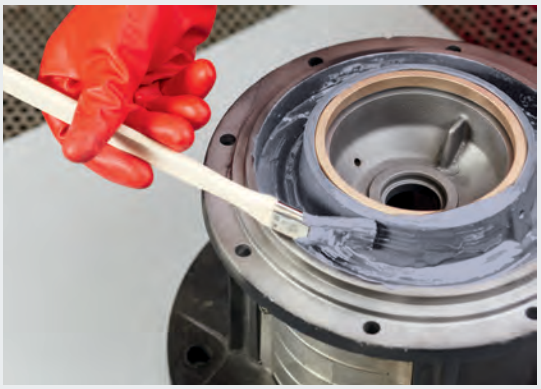
LOCTITE® Protective Coatings are designed to protect against corrosion and chemical attack. They contain no ceramic fillers and therefore allow a very smooth surface.

Why choose LOCTITE® Protective Coatings and Compounds?

Traditional repair methods such as hard metal welding or flame spraying are expensive and difficult to use for large surfaces. But LOCTITE® Protective Coatings and Compounds are easily applied on surfaces of all sizes and offer the extra benefit of corrosion protection. In addition, LOCTITE® Protective Coatings and Compounds don't create heat stress during the application.

Key benefits:

- Restore worn surfaces and extend the life of new as well as old parts
- Increase part efficiency
- Save costs by avoiding part replacement and reducing spare-part inventories
- Protect parts against abrasion, erosion, chemical attack and corrosion
- Excellent chemical resistance for effective protection of assemblies



Key factors to consider when choosing the right LOCTITE® Nordbak® Protective Coating or Compound:

Particle size

To improve abrasion resistance, the abrasive materials and of the LOCTITE® Protective Coatings and Compounds should have similar particle sizes. The range of LOCTITE® Protective Coatings and Compounds offers grades for coarse particles as well as fine particle protection and some specific products for pure chemical attack or corrosion protection. A special product offering high impact resistance is also included in the range.

Temperature resistance

Operating temperatures of LOCTITE® Coatings and Compounds range from -30 to +120 °C. Some special grades, such as LOCTITE® 7226™, can be used up to 230 °C. These special grades require post curing to achieve their ultimate high temperature performance.

Chemical and corrosion resistance

Thanks to the special epoxy matrix of LOCTITE® Coatings and Compounds, this range of products is resistant to most types of chemical attack. All our products offer good protection against fresh water and sea water, ammonium sulphate and sodium hydroxide. Specific products also resist strong chemicals such as sulphuric acid and urea.

A comprehensive overview for the chemical resistance of LOCTITE® Coatings and Compounds is available – please contact your local Henkel Technical Support Team for further information.

APPLICATION TIPS & TRICKS

Preventing flash rusting

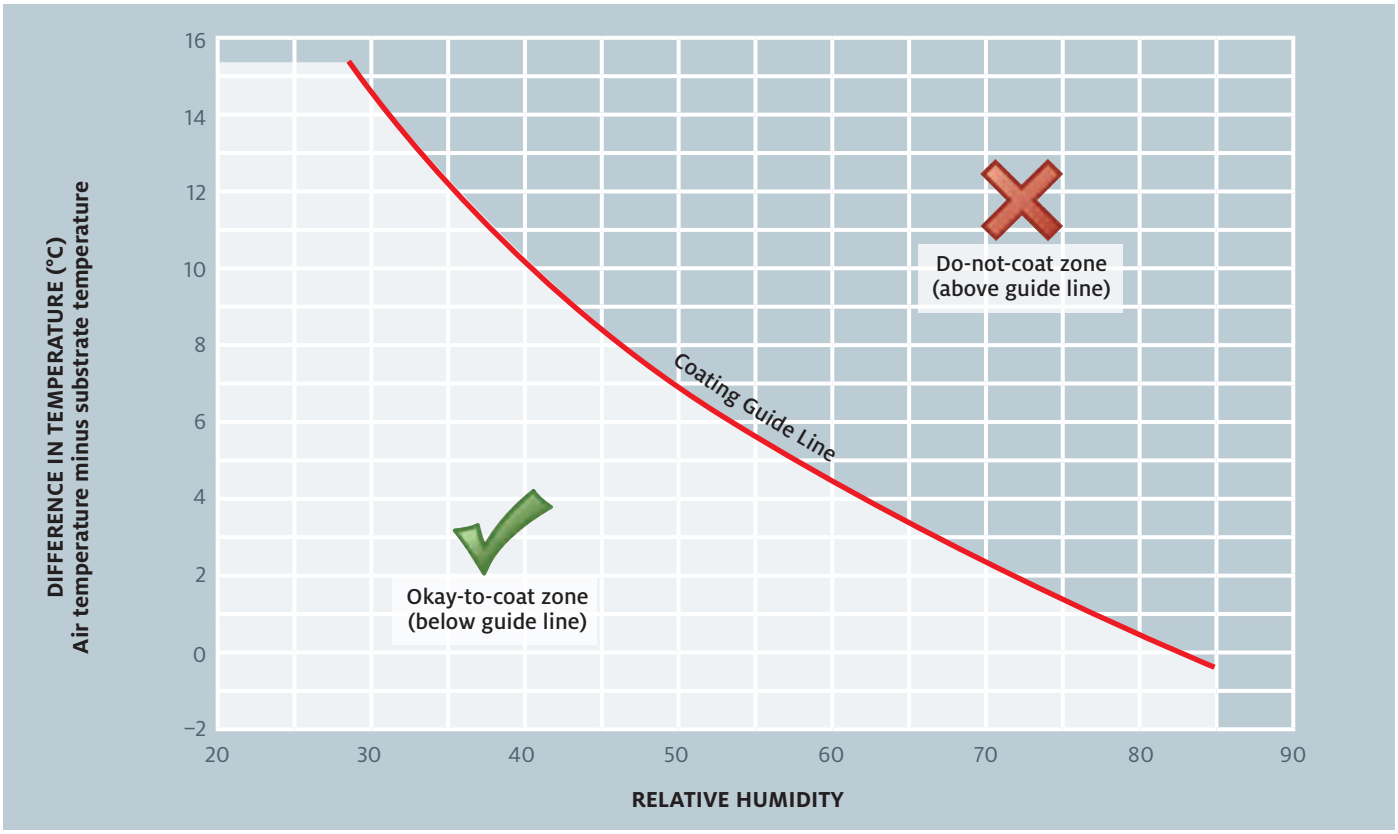
In high humidity conditions, flash rusting of a newly prepared metal surface can develop within minutes, causing contamination which will need to be removed again before a coating is applied. A thin coat of LOCTITE® 7515™ applied as soon as possible after preparing a metal surface will prevent flash rusting.

MOISTURE-FREE surface

It is critical to the success of most coating systems that the surface is completely free of moisture prior to and during product application and curing.

Dew point

Condensation of water (dew) from the atmosphere onto the surface can occur given the right conditions. For a given set of conditions, the temperature at which condensation will occur is called the dew point. As long as the surface temperature is 3 °C (or more) above the dew point, it is generally considered safe to coat as far as risk of condensation is concerned.



Pre-coating for maximum adhesion

After surface preparation, pre-coat the application surface by rubbing the mixed composite into the substrate. This technique, called “wetting out the surface,” helps the repair material fill all the crevices in the application surface, creating a superior bond between the composite and substrate. The rest of the mixed product can then be applied over the pre-coat to finish the application.

Creating a smooth finish

Smooth out the uncured product with a warm trowel for a smooth, glossy finish. A heat gun can also be used to create a smooth finish.

Wear indicator

When applying two coats of LOCTITE® Coatings and Compounds, different colors can be used to indicate wear. When the first coat begins to wear the second coat’s color will show through, providing an accurate visual indicator of wear.

Special recommendations for sprayable products

As for all LOCTITE® Protective Coatings and Compounds best coating results are obtained by applying the product in a specific layer thickness. This is especially important for application on vertical surfaces.

For best results also in corners and edges, it is recommended to smooth angles to a radius of 3 mm.

When using LOCTITE® 7255™ it is recommended to heat the product prior to application to ensure easy spraying and a smoother surface.

PROTECTIVE COATINGS AND COMPOUNDS

ARE YOU EXPERIENCING CORROSION OR WEAR?

Corrosion
(e.g., chemical, rust, etc.)

Deep

Helpful Hints:

- Clean surfaces with LOCTITE® SF 7063™ Parts Cleaner.
- Use expanded metal to fill large voids.
- Roughen surfaces to ensure adhesion.

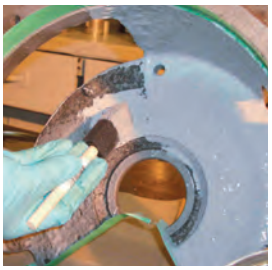
Solution

	LOCTITE® PC 7319™ Nordbak® Chemical-Resistant Coating	LOCTITE® PC 7218™ Nordbak® Wearing Compound
Color	Grey	Grey
Maximum Temperature	150°F (66°C)	250°F (121°C)
Working Time*	20 min.	30 min.
Cure Time*	16 hrs.	7 hrs.

Additional Products

Name	*Feature*	*Item No.*	*Pkg. Size*
LOCTITE® PC 7230™ High Temperature Wearing Compound	450°F (232°C)	99112	25 lb. kit
LOCTITE® PC 7303™ High Temperature Pneu-Wear	450°F (232°C)	98372	25 lb. kit
LOCTITE® PC 7339™ Ultra High Temperature Wearing Compound	550°F (288°C)	1018430	5 kg kit
LOCTITE® PC 7338™ Ultra High Temperature Pneu-Wear	550°F (288°C)	235597	25 lb. kit
LOCTITE® PC 9599™ Fast Cure Wearing Compound	3 hr. cure	96373	6 lb. kit
LOCTITE® PC 7455™ Fast Cure Pneu-Wear	3 hr. cure	96363	6 lb. kit
LOCTITE® PC 7234™ High Temperature Brushable Ceramic	550°F (288°C)	2049551	1 kg kit
LOCTITE® PC 9628™ Castable Wearing Compound	Molds wear-resistant parts	98992	25 lb. kit
LOCTITE® PC 7364™ High Impact Tile Adhesive	200°F (93°C)	1690646	20 lb. kit
LOCTITE® PC 7363™ Ceramic Tile Adhesive	High strength epoxy	1324544	20 lb kit
LOCTITE® PC 7357™ Combo Bead Wearing Compound	250°F (121°C)	1324571	6 lb. kit
LOCTITE® PC 7223™ Wearing Compound Cure Accelerator	Accelerates cure speed (25 lb. kit only)	1728412	2.73 lbs.
LOCTITE® PC 7224™ Pneu Wear Cure Accelerator	Accelerates cure speed (25 lb. kit only)	1736175	2.49 lbs.
LOCTITE® PC 9313™ High Impact Wearing Compound	Grey	1327836	25 lb. kit

* At 77°F (25°C)



LOCTITE® PC 7319™ Nordbak® Chemical-Resistant Coating

Smooth, glossy, low-friction finish protects against turbulence, abrasion and cavitation. This advanced epoxy protects equipment from extreme chemical attack and corrosion. Low-viscosity epoxy can be applied by brush.

CFIA Approved.

P/N	Package Size
209816	11 lb. kit

LOCTITE® PC 7218™ Nordbak® Wearing Compound

Trowelable compound that protects against sliding abrasion. Use to rebuild and protect chutes, pump housings, elbows, cyclones and material handling equipment.

P/N	Package Size
1323940	25 lb. kit

Wear

Impact or sliding abrasion resistance?

Sliding

Impact

Are you filling deep or shallow wear?

Shallow

LOCTITE® PC 7255™ Nordbak® Sprayable Ceramic	LOCTITE® PC 7226™ Nordbak® Pneu-Wear	LOCTITE® PC 7227™ Nordbak® Brushable Ceramic	LOCTITE® PC 7222™ Nordbak® Wear Resistant Putty	LOCTITE® MR FLEX 80™ Putty
Green or Grey	Grey	Grey, White or Blue	Grey	Black
200°F (93°C)	250°F (121°C)	200°F (93°C)	225°F (107°C)	180°F (82°C)
40 min.	30 min.	Grey 30 min./White 15 min.	30 min.	10 min.
6 hrs.	6 hrs.	6 hrs.	6 hrs.	8 hrs.

LOCTITE® PC 7255™ Nordbak® Sprayable Ceramic

Smooth wear-resistant, low-friction coating to combat turbulance and cavitation on components such as pump housings and impellers. See page 42 for dispensing equipment.

P/N	Package Size
2012146	900 ml cart.

LOCTITE® PC 7226™ Nordbak® Pneu-Wear

Resists fine particle abrasion caused in pipe elbows of pneumatic conveyor systems.

ABS Approved.
CFIA Listed.

P/N	Package Size
209824	3 lb. kit

LOCTITE® PC 7227™ Nordbak® Brushable Ceramic

Smooth, wear-resistant, low-friction coating to combat turbulence and cavitation on components such as pump housings and impellers.

CFIA Listed.
NSF/ANSI 61 Certified (Grey only).

P/N	Package Size
209826	2 lb. kit Grey
2015126	1 kg kit
2257937	6 lb. kit

LOCTITE® PC 7222™ Nordbak® Wear Resistant Putty

Ceramic fibers give this trowelable putty excellent wear and abrasion resistance with a smooth, low friction finish. Can be used over other wearing compounds to fill voids.

ABS Approved.
CFIA Listed.

P/N	Package Size
235626	1 lb. kit
679971	1 kg

LOCTITE® MR FLEX 80™ Putty

A trowelable, two-part urethane for rebuilding and repairing rubber parts and linings, providing impact, abrasion, and corrosion resistant protection. Use Flex™ accessory products to properly etch, clean and prime surfaces.

ABS Approved.

P/N	Package Size
209821	1 lb. kit

PROTECTIVE COATINGS AND COMPOUNDS

Product	Product description	Particle size	Color	Mix ratio by volume (A:B)	Mix ratio by weight (A:B)	Working time	Surface drying time
LOCTITE® PC 7218™ WEARING COMPOUND	Ceramic filled epoxy compound	Large	Grey	2:1	100:50	30 min.	7 hrs.
LOCTITE® PC 7219™ CERAMIC COMPOUND	Ceramic filled epoxy compound	Large	Grey	2:1	100:50	30 min.	6 hrs.
LOCTITE® PC 7222™ WEAR RESISTANT PUTTY	Ceramic filled epoxy compound	Small	Grey	2:1	100:50	30 min.	6 hrs.
LOCTITE® PC 7226™ PNEU-WEAR	Ceramic filled epoxy compound	Fine	Grey	4:1	100:25	30 min.	6 hrs.
LOCTITE® PC 7227™ BRUSHABLE CERAMIC	Ceramic filled epoxy compound	Fine	Grey	2.75:1	100:20.8	30 min.	6 hrs.
LOCTITE® PC 7230™ HIGH TEMPERATURE WEARING COMPOUND	Ceramic filled epoxy compound	Large	Grey	4:1	100:25.6	30 min.	7 hrs. + 2 hrs. post cure
LOCTITE® PC 7234™ HIGH TEMPERATURE BRUSHABLE CERAMIC	Ceramic filled epoxy compound	Fine	Red	2.6:1	100:21	30 min.	8 hrs. + 3 hrs. post cure
LOCTITE® PC 7255™ SPRAYABLE CERAMIC	Ceramic filled epoxy compound	Fine	Green/grey	2:1	100:50	40 min.	4 hrs.
LOCTITE® PC 7266™ SPRAYABLE CERAMIC	Epoxy coating	–	Blue	2.3:1	100:28	30 min.	5 hrs.
LOCTITE® PC 7277™ CHEMICAL RESISTANT COATING	Epoxy coating	–	Blue	2.8:1	100:34	30 min.	6 hrs.
POLYPOXY PS	Polysulphide modified epoxy resin protective coating	–	Grey	1:1	1:1	60 min.	6 hrs.

Recommended layer thickness	Hardness shore D	Compressive strength N/mm²	Shear strength N/mm²	Service temperature range	Pack sizes	Comments
min. 6 mm	90	110.3	–	-30 to +120°C	1kg, 10kg	Trowelable ceramic compound
min. 6 mm	85	82.7	–	-30 to +120°C	1kg, 10kg	High impact trowelable ceramic compound
–	89	80	10	-30 to +107°C	1.3kg	Trowelable ceramic putty
min. 6 mm	85	103.4	34.5	-30 to +120°C	1kg, 10kg	Pneu-Wear ceramic compound
min. 0.5 mm	85	86.2	24.2	-30 to +95°C	1kg	Brushable ceramic compound, self-levelling (grey)
min. 6 mm	90	103.4	–	-28 to +230°C	10kg	Trowelable ceramic compound, high temperature resistant
min. 0.5 mm	–	–	–	-29 to +205°C	1kg	High temperature brushable ceramic compound
min. 0.5 mm	86	106	31	-30 to +95°C	900ml, 30kg	Sprayable ceramic compound
min. 0.2 mm	84	105	17	-30 to +100°C	1kg, 30kg	Sprayable non-filled coating for metal surfaces
min. 0.5 mm	–	–	–	-30 to +95°C	5KG, 30kg	Brushable non-filled coating for concrete surfaces
min. 0.5 mm	56	–	12.5	5 to +70°C	20 ltr	Designed for superior adhesion, corrosion protection and high chemical resistance for concrete and steel structures

APPLICATION CASE HISTORIES

SHAFT

Challenge

Metal shaft is worn out resulting in device failure and being no longer able to properly assemble the counterpart.

Solution

Rebuild shaft by using LOCTITE® EA 3478™ to recreate smooth surface and ensure needed fit between shaft and bearing.

Benefit	Shaft is restored to serviceable condition in only 4 hours.

COLUMN FOOTING

Challenge

Storage tank and vessels concrete footing breaks up due to stress and corrosion. This requires in situ repairs that can withstand heavy loads and stresses. It needs to bond on rusted concrete and bars.

Solution

LOCTITE® PC 9416 - Fast with its three-part concrete repair system that has ability to bond on old concrete and steel. High compressive strength and chemical resistance for long term repair and recasting.

Benefit	Extended service life of up to 10 years and significant cost savings.

DECANTER CENTRIFUGE

Challenge

Centrifuge of wastewater plant made of mild steel is exposed to moisture resulting in heavy corrosion of the outer wall.

Solution

Coat with LOCTITE® PC 7227™ to rebuild and avoid steady corrosion.

Benefit	Protect against device failure caused by corrosion and extend service intervals.

PUMP

Challenge

In a refinery, a pump made of stainless steel is exposed to aggressive chemicals and moisture resulting in abrasion and galvanic corrosion.

Solution

Coat the outer wall with LOCTITE® PC 7266™ and the inner wall with LOCTITE® PC 7255™.

Benefit	High wear resistance of the inner wall and improved efficiency, insulation of outer wall against corrosion.

CENTRIFUGAL PUMP

Challenge

Centrifugal pump of a refinery is exposed to strong corrosion and wear. Rebuild by Grupo NAVEC needed to restore device to serviceable condition.

Solution

Coat with LOCTITE® PC 7255™ to rebuild and increase resistance against wear.

Benefit	Prevent part replacement and improve pump efficiency.

IMPELLER

Challenge

Pump impeller made of cast iron is exposed to fluids and particles resulting in heavy abrasion and corrosion.

Solution

First rebuild worn part with LOCTITE® 3478™. Next, coat with LOCTITE® PC 7227™ to create a smooth surface.

Benefit	Extend part working life and improve pump efficiency.

LOCTITE®

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