

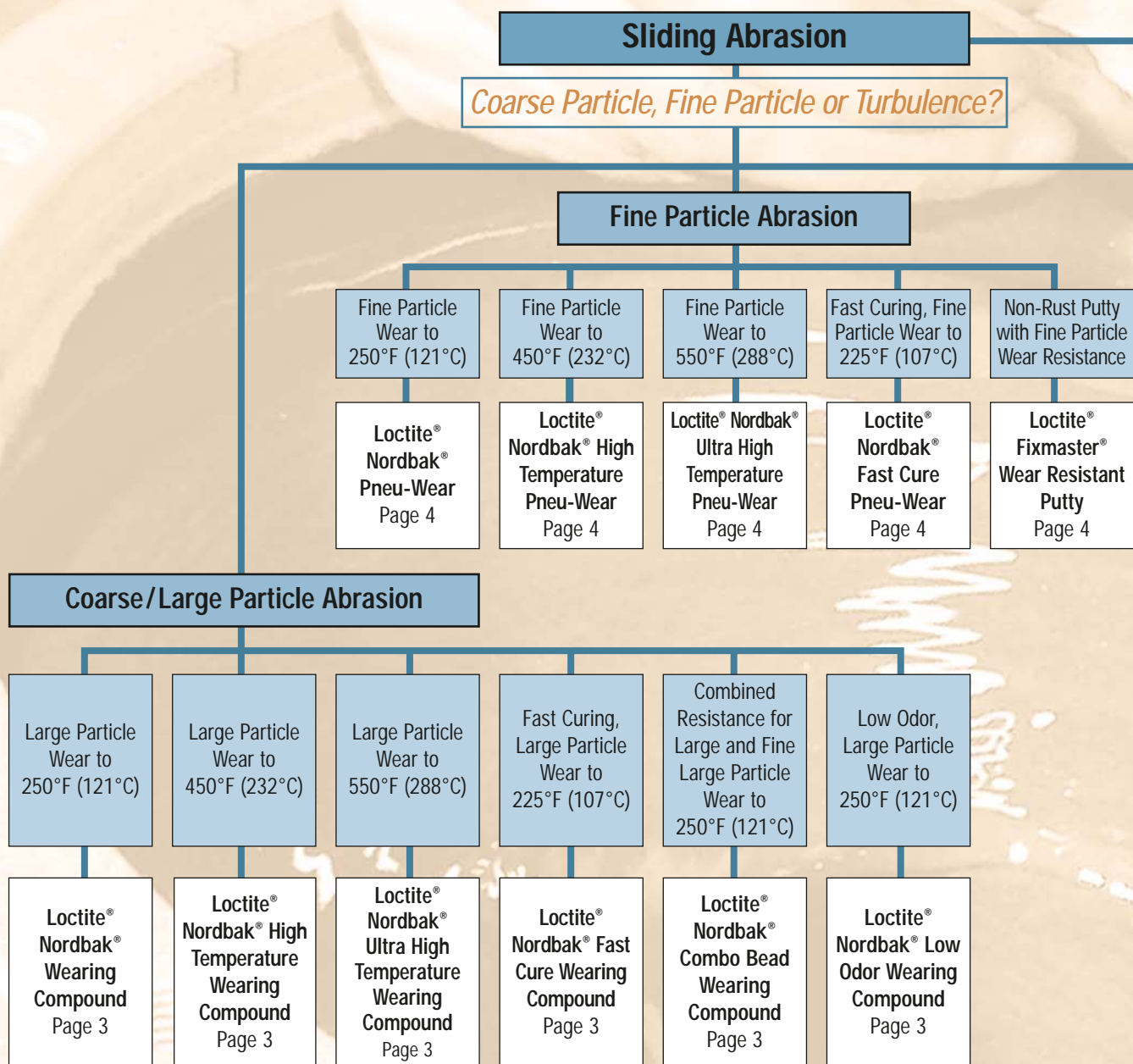
# LOCTITE®

## Loctite® Nordbak® Wear Resistant Coatings *Rebuild, Repair and Protect Industrial Equipment Brochure*



# Loctite® Wear Resistant Coatings Selector Guide

Loctite® Nordbak® Wear Resistant Coatings utilize the superior wear properties of ceramic and the convenience of two-part epoxies to protect equipment like pumps, chutes and augers in harsh industrial environments. Available in trowelable and brushable formulations with special fillers for tough conditions, Loctite® Nordbak® products stand up to almost any corrosion, abrasion and wear problem you can encounter, and are ideal for all those large-scale repairs that have to last.



- ✓ Provide superior protection from environmental impact
- ✓ Eliminate and break corrosion/erosion cycle
- ✓ Non-shrink and non-sag formulations
- ✓ High compression strength
- ✓ Broad chemical resistance
- ✓ Broad range tailored to specific applications

*Are you experiencing mechanical wear/abrasion or corrosion/erosion?*

**Wear/Abrasion**

**Extreme Corrosion/Erosion**

*Sliding Abrasion or Impact Resistance?*

Loctite® Nordbak® Chemical Resistant Coating  
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**Liquid/Slurry Turbulence**

**Impact**

**Specialty**

Low Friction,  
Turbulence  
Resistance to  
200°F (93°C)

Low Friction,  
Turbulence  
Resistance to  
550°F (288°C)

Thin Mil,  
Low Friction,  
Turbulence  
Resistance to  
200°F (93°C)

Loctite®  
Nordbak®  
High Impact  
Wearing  
Compound  
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Loctite®  
Fixmaster®  
Flex 80™ Putty  
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Loctite®  
Nordbak®  
Castable  
Wearing  
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Loctite®  
Nordbak®  
Ceramic Tile  
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Loctite®  
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Brushable  
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Loctite®  
Nordbak® High  
Temperature  
Brushable  
Ceramic  
Page 5

Loctite®  
Nordbak®  
Brushable  
Ceramic –  
Thin Mil  
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# Sliding Abrasion, Wear Resistance and Extreme Corrosion / Erosion

Nordbak® Wear Resistant Coatings for repair and protection against mechanical wear and sliding abrasion.

Protecting vital operating equipment with  
Loctite® Nordbak® Wearing Compounds

## COARSE / LARGE PARTICLE ABRASION

### LOCTITE® NORDBAK® WEARING COMPOUND

#### *Coarse Abrasion and Corrosion Resistance*

A two-part epoxy designed to protect, rebuild and repair high wear areas of processing equipment under typical service temperatures up to +250°F (+121°C). Ceramic-filled for outstanding resistance to abrasion and corrosion. This compound is trowelable and non-sagging and therefore suitable for overhead and irregular surfaces. It is used to resist sliding abrasion when large particles are present ( $\frac{1}{16}$ ").



5 lb. kit – 99813  
25 lb. kit – 99812

### LOCTITE® NORDBAK® FAST CURE WEARING COMPOUND

#### *Coarse Abrasion and Corrosion Resistance while Curing Faster*

This faster curing version performs like standard Loctite® Nordbak® Wearing Compound, while offering a working time of 10 minutes and reducing total equipment downtime to as little as three hours.



6 lb. kit – 96373

### LOCTITE® NORDBAK® COMBO BEAD WEARING COMPOUND

#### *Both Coarse and Fine Particle Abrasion and Corrosion Resistance*

Loctite® Nordbak® Combo Bead Wearing Compound contains both large and small ceramic beads, offering better wear properties when both coarse/ large and fine particles are present.



6 lb. kit – 96303

### LOCTITE® NORDBAK® HIGH AND ULTRA HIGH TEMPERATURE WEARING COMPOUNDS

#### *Coarse Particle Abrasion and Corrosion Resistance at High Temperatures*

These epoxy compounds perform like Loctite® Nordbak® Wearing Compound, while protecting equipment in high heat environments up to 450°F and 550°F (232°C and 288°C), where conventional repair systems fail.



High Temperature  
25 lb. kit – 99112  
Ultra High Temperature  
25 lb. kit – 96392

### LOCTITE® NORDBAK® LOW ODOR WEARING COMPOUND NEW

#### *Coarse Abrasion and Corrosion Resistance with Low Odor*

Loctite® Nordbak® Low Odor Wearing Compound offers the same protection against coarse/large particle abrasion as Loctite® Nordbak® Wearing Compound, while offering a low odor. This coating is particularly suited for applications in areas where ventilation may be limited.



25 lb. kit – 41343

## Tips and Tricks

### Loctite® Fixmaster® and Nordbak® Curing Times

Working time and cure depends on temperature and mass.

- The higher the temperature, the faster the cure
- The larger the mass of material mixed, the faster the cure

To **SPEED THE CURE** of composites at low temperature:

- Store composite at room temperature
- Pre-heat repair surface until warm to touch

To **SLOW THE CURE** of composites at high temperature:

- Mix composites in small masses to prevent rapid curing
- Cool resin/hardener components

## FINE PARTICLE ABRASION

### LOCTITE® NORDBAK® PNEU-WEAR



3 lb. kit – 98383  
25 lb. kit – 98382

#### *Fine Particle Abrasion Resistance*

A two-component epoxy, filled with small ceramic beads and silicon carbide, for protecting processing equipment from fine particle abrasion. This trowelable and non-sag epoxy is recommended for rebuilding, repairing and protecting high wear areas under typical dry service temperatures of up to 250°F (121°C). It won't sag or shrink, so it is also suitable for providing abrasion resistance on overhead and vertical surfaces. It is used to resist sliding abrasion when small particles are present (<math>< \frac{1}{16}''</math>).

### LOCTITE® NORDBAK® FAST CURE PNEU-WEAR



6 lb. kit – 96363

#### *Fine Particle Abrasion Resistance While Curing Faster*

Loctite® Nordbak® Fast Cure Pneu-Wear performs like standard Loctite® Nordbak® Pneu-Wear, while offering a working time of 10 minutes and reducing total equipment downtime to as little as three hours.

### LOCTITE® FIXMASTER® WEAR RESISTANT PUTTY



1 lb. kit – 98742  
3 lb. kit – 98743

#### *Resistance to Non-Sagging and Abrasion*

Ceramic fibers give this trowelable, corrosion resistant putty excellent wear and abrasion resistance properties under typical service temperatures up to 225°F (107°C). It cures to a smooth, low friction finish for equipment exposed to wear, erosion, and cavitation.

### LOCTITE® NORDBAK® HIGH AND ULTRA HIGH TEMPERATURE PNEU-WEAR



High Temperature  
25 lb. kit – 98372  
Ultra High Temperature  
25 lb. kit – 96332

#### *Fine Particle Abrasion Resistance at High Temperatures*

High temperature versions of Loctite® Nordbak® Pneu-Wear designed for hot environments. These trowelable and non-sag, two-part epoxies resist fine particle abrasion under typical dry service temperatures up to 450°F (232°C) and 550°F (288°C).



Repairing a pump impeller with Loctite® Fixmaster® Wear Resistant Putty

## Did You Know?

### *Wear Indicator*

When applying two coats of Loctite® Nordbak® Brushable Ceramic, a different color can be used for each: grey and white. When the first coat begins to wear, the second color coat will show through, providing an accurate visual indicator of wear.



## LIQUID / SLURRY TURBULENCE

### LOCTITE® NORDBAK® BRUSHABLE CERAMIC



2 lb. kit (White) – 96443  
2 lb. kit (Grey) – 98733  
6 lb. kit (Grey) – 98732

#### *Brushable Protective Coating against Liquid/Slurry Turbulence and Cavitation*

An ultra-smooth, ceramic reinforced epoxy that provides a high gloss, low friction coating to protect against turbulence, abrasion and cavitation under typical dry service temperatures up to 200°F (93°C). Used by itself, it is recommended for sealing and protecting equipment from corrosion and wear. It also works as a topcoat over Loctite® Nordbak® Wearing Compound or Loctite® Nordbak® Pneu-Wear for applications requiring surface rebuilding and lasting protection. Alternative coat colors can be used to indicate wear.

### LOCTITE® NORDBAK® BRUSHABLE CERAMIC – THIN MIL NEW



2 lb. kit (Grey) – 40592  
2 lb. kit (Blue) – 40591  
2 lb. kit (Black) – 40590

#### *Thin Mil Brushable Ceramic Protective Coating against Liquid/Slurry Turbulence and Cavitation*

Loctite® Nordbak® Brushable Ceramic – Thin Mil can be drawn to half the thickness of standard Loctite® Nordbak® Brushable Ceramic while also providing a high gloss, low friction coating to protect against turbulence, abrasion, and cavitation. This product is ideal for applications where tight tolerances are an issue. Similar to the standard version, the Thin Mil is available in three colors to allow for layering and use as a wear indicator.

### LOCTITE® NORDBAK® HIGH TEMPERATURE BRUSHABLE CERAMIC



2 lb. kit – 96433

#### *Brushable Protective Coating against Liquid/Slurry Turbulence and Cavitation at High Temperatures*

A brushable two-part epoxy designed to protect against turbulence, abrasion and cavitation under extreme heat. Typical dry service temperatures up to 550°F (288°C).



Coating a pump volute with Loctite® Nordbak® Brushable Ceramic

## IMPACT WEAR RESISTANCE

### LOCTITE® NORDBAK® HIGH IMPACT WEARING COMPOUND



25 lb. kit – 39918

#### *Impact and Sliding Abrasion Resistance*

A rubber-modified, two-part epoxy that offers wear and impact resistance properties not usually found in epoxy formulations. With impact resistance superior to ceramic tile, this product is for applications where both sliding abrasion and impact are present, under typical dry service temperatures up to 250°F (121°C).

### LOCTITE® FIXMASTER® FLEX 80™ PUTTY



1 lb. kit – 97423  
25 lb. kit – 97422

#### *Impact and Sliding Abrasion Resistance*

This trowelable, two-part urethane rebuilds and repairs rubber parts and linings. It provides impact, abrasion and corrosion resistant protection to processing and pneumatic conveying equipment. Recommended for applications where speed of cure is not critical under typical dry service temperatures up to 180°F (82°C).

## SPECIALTY WEAR RESISTANCE

### LOCTITE® NORDBAK® CASTABLE WEARING COMPOUND



25 lb. kit – 98992

#### *For Casting Wear Resistant parts*

A three-part epoxy that can be cast into a mold or formed to make ceramic replacement parts. This pourable compound has ceramic beads, giving parts excellent resistance to wear and abrasion.

### LOCTITE® NORDBAK® CERAMIC TILE ADHESIVE



20 lb. kit – 97762

#### *For Securing Ceramic Tiles*

A two-component, high strength epoxy for securing ceramic wear tiles to vertical, horizontal, or overhead surfaces. This trowelable compound offers excellent shock and impact resistance.

## EXTREME CORROSION AND EROSION RESISTANCE

### LOCTITE® NORDBAK® CHEMICAL RESISTANT COATING



12 lb. kit – 96092

#### *Chemical Resistant Brushable Coating*

This advanced, two-part epoxy is designed to protect equipment against extreme chemical attack and corrosion under typical dry service temperatures up to 150°F (65°C). It forms a smooth, glossy, low-friction finish that protects against turbulence and cavitation. Its low viscosity means it can be applied by brush or pressure sprayed.



*Coating a pump volute with Loctite® Nordbak® Chemical Resistant Coating*



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For your local Loctite® brand Adhesives and Sealants Specialist, call: 1.800.323.5106

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## Henkel Corporation

Engineering Adhesives  
1001 Trout Brook Crossing  
Rocky Hill, Connecticut 06067  
Tel: 860.571.5100  
Fax: 860.571.5465  
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## Henkel Canada Corporation

Engineering Adhesives  
2225 Meadowpine Blvd.  
Mississauga, Ontario L5N 7P2  
Tel: 1.800.263.5043 (within Canada)  
Tel: 905.814.6511  
Fax: 905.814.5391

Material Safety Data Sheets and Technical Data Sheets also available by 24-hour fax. 1.800.LOCTITE (562.8483) 1.800.263.5043 (within Canada)

For information on Manufacturing Reliability Training call: 1.800.LOCTITE (562.8483) 1.800.263.5043 (within Canada)



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## Wear Resistant Coatings Properties Chart

PRODUCT	Page #	Item Number	Container	COVERAGE (FT. <sup>2</sup> @ 1/4" THICKNESS)	COLOR	MAXIMUM OPERATING TEMPERATURE (°F)	COMPREHENSIVE STRENGTH (PSI)	HARDNESS (SHORE D)	WORKING TIME (MINUTES) 77°F	FUNCTIONAL CURE (HOURS) 77°F	MIX RATIO BY VOLUME (R:H)	MIX RATIO BY WEIGHT (R:H)	AGENCY APPROVALS				
<b>SLIDING ABRASION AND WEAR RESISTANCE (Coarse/Large Particle)</b>																	
Loctite® Nordbak® Wearing Compound	3	99813	5 lb. kit	1.75	Grey	250	16,000	90	30	7	2:1	2:1	NEHC				
		99812	25 lb. kit	8.75													
Loctite® Nordbak® Fast Cure Wearing Compound	3	96373	6 lb. kit	2.1	Blue	225	10,000	90	10	3	2:1	2:1	N/A				
Loctite® Nordbak® High Temperature Wearing Compound	3	99112	25 lb. kit	9	Grey	450	15,000	85	30	▼	4:1	3.9:1	N/A				
Loctite® Nordbak® Ultra High Temperature Wearing Compound	3	96392	25 lb. kit	9	Red	550	N/A	90	30	▼	2.44:1	2.85:1	N/A				
Loctite® Nordbak® Combo Bead Wearing Compound	3	96303	6 lb. kit	2.3	Grey	250	13,000	90	25	8	2:1	2:1	N/A				
Loctite® Nordbak® Low Odor Wearing Compound	3	41343	25 lb. kit	8.75	Grey	250	16,000	90	30	7	2:1	2:1	N/A				
<b>SLIDING ABRASION AND WEAR RESISTANCE (Fine Particle)</b>																	
Loctite® Nordbak® Pneu-Wear	4	98383	3 lb. kit	1.1	Grey	250	15,000	90	30	6	4:1	4:1	ABS, CFIA, NEHC, Lloyds				
		98382	25 lb. kit	9													
Loctite® Nordbak® Fast Cure Pneu-Wear	4	96363	6 lb. kit	2.1	Blue	225	12,000	90	10	3	2:1	2:1	CFIA				
Loctite® Nordbak® High Temperature Pneu-Wear	4	98372	25 lb. kit	8.8	Grey	450	15,000	90	30	▼	4:1	4:1	N/A				
Loctite® Nordbak® Ultra High Temperature Pneu-Wear	4	96332	25 lb. kit	8.8	Red	550	N/A	90	30	▼	2:1	2.27:1	N/A				
Loctite® Fixmaster® Wear Resistant Putty	4	98742	1 lb. kit	53	Grey	225	11,608	89	30	6	2:1	2:1	ABS, CFIA, NEHC, Lloyds				
		98743	3 lb. kit														
<b>LIQUID/SLURRY TURBULENCE RESISTANCE</b>																	
Loctite® Nordbak® Brushable Ceramic	5	98733	2 lb. kit	12*	Grey	200	12,500	85	30	6	2.75:1	4.8:1	ABS, CFIA, NEHC, Lloyds				
		98732	6 lb. kit	36*													
		96443	2 lb. kit	12*	White									15	5	2.8:1	4.5:1
Loctite® Nordbak® High Temperature Brushable Ceramic	5	96433	2 lb. kit	12*	Red	550	16,000	90	120	▼	2.6:1	4.25:1	N/A				
Loctite® Nordbak® Brushable Ceramic – Thin Mil	5	40592	2 lb. kit	12*	Grey	200	12,500	85	30	6	2.75:1	4.8:1	N/A				
		40591	2 lb. kit	12*	Blue									6	2.75:1	4.8:1	N/A
		40590	2 lb. kit	12*	Black									6	2.75:1	4.8:1	N/A
<b>IMPACT WEAR RESISTANCE</b>																	
Loctite® Nordbak® High Impact Wearing Compound	6	39918	25 lb. kit	8.75	Grey	250	15,000	85	30	6	2:1	2:1	N/A				
Loctite® Fixmaster® Flex 80™ Putty	6	97423	1 lb. kit	94	Black	180	N/A	87	10	8	100:40	72:28	ABS				
		97422	6 lb. kit	564													
<b>SPECIALTY WEAR RESISTANCE</b>																	
Loctite® Nordbak® Castable Wearing Compound	6	98992	25 lb. kit	277 in. <sup>3</sup>	Grey	225	18,500	90	30	6	2:1	6.8:1	N/A				
Loctite® Nordbak® Ceramic Tile Adhesive	6	97762	20 lb. kit	12	Beige	200	14,000	88	60	12	1:1	3.7:1	N/A				
<b>EXTREME CORROSION/EROSION RESISTANCE</b>																	
Loctite® Nordbak® Chemical Resistant Coating	6	96092	12 lb. kit	74*	Grey	150	10,000	83	20	16	2.3:1	3.4:1	CFIA				

Properties based on mixing 1 lb. mass at 77°F, ultimate cure. \* 20 mil thickness. ▼ Requires heat cure. See Technical Data Sheet. NEHC = Navy Environmental Health Center



Visit the web for immediate access to:

- ✓ Distributor Information
- ✓ Material Safety Data Sheets
- ✓ Technical Data Sheets
- ✓ Product Application Assistance
- ✓ Product Literature
- ✓ Bill of Lading Code Information

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