EpoxyKev™

KEVLAR AND CERAMIC REINFORCED EPOXY

DATA SHEET

PRODUCT DESCRIPTION

EpoxyKev™ is based on a unique blend of liquid epoxy polymer and aliphatic polyamine curing agents, which can displace water from wet surfaces to make a permanent bond. The formulation is solvent-free to ensure safety and maximum technical performance.

Kevlar®* microfibers are incorporated for reinforcement and viscosity management to achieve high application rates-even underwater! **EpoxyKev™** has successfully passed DBA test requirements for above or below water applied nuclear.

EpoxyKev™ provides permanent protection under the most adverse conditions. The formula is uniquely field-friendly and uses advanced low toxicity ingredients in a high build brushable/rollable product. The sister product **EpoxyKev HV™** is available if a higher viscosity, "light paste" consistency is required.

EpoxyKev™ can be shipped by Ground "Non-Regulated" by USDOT. When shipped by Air or Ocean **EpoxyKev™** is classified UN3082, PGIII.

* Kevlar is a trademark of E. I. DuPont de Nemours Co

MAIN FEATURES

COMPOSITE REPAIRS: It can be used in combination with compounds such as **WrapFill 811™, EpoxyKev™** provides permanent protection in the harshest conditions. It was formulated for the special conditions found on the internal and external surfaces of oilfield production tubulars, oil and gas separators, mining or similar equipment.

RECOMMENDED USES

Internal and external anti-wear coating, for oilfield and similar production equipment exposed to high velocity, hot hydrocarbon streams.

Anti-wear coating, for all applications where extreme resistance to abrasion is required.

SURFACE PREPARATION

Remove all contaminants that interfere with good adhesion. Petroleum equipment must be degreased, free of hydrocarbons and waxes by high pressure water jetting, thorough solvent cleaning or any other appropriate means prior to steel preparation by abrasive blasting or needle scaling.

Cleanliness is of supreme importance and the profile surface should be a minimum of 2.5 mils (63 microns), but preferably 3.0 mils (76 microns) or higher.

APPLICATION CONDITIONS

It cures to a hard film within 12 hours of application at normal room temperatures, it must be heated to at least 125 F (52 C) for 2 hours before exposure to hot product streams.

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MIXING PROCEDURE

EpoxyKev ™ is supplied in 2-gallon kits each 2x1 of the epoxy base and curing agent. These components are formulated in contrasting colors to facilitate complete mixing. EpoxyKev™ is supplied with a gray epoxy base and a blue curing agent that are mixed to produce a blue gray blend. Visible streaks of gray or blue seen during mixing indicate "hot spots" of unmixed components. Thorough mixing is critical, as unmixed components will never cure.

Remove equal amounts of base and curing agent from their cans and place them side by side on a surface made of plastic, fiberboard, etc. Mixing is easily accomplished by folding the components together using a spatula or piece of wood.

Once mixing begins there will be about 40 minutes of working time available at 80 C. This time can be extended by keeping the components and mixture cool. Send mixed material underwater as soon as possible rather than leaving it on a hot deck.

APPLICATION

EpoxyKev™ is a thixotropic blend designed to be easily applied using simple tools. Apply using a suitable tool such as a stiff brush or straight-edged plastic spatula in the same manner as butter on bread.

Apply enough material to the weld beads to "just" the bead to minimize turbulence and impact. CeramicKev™ must be well cured prior to initial service.

Although it cures to a hard film within 12 hours of application at normal room temperatures, it must be heated to at least 125 F (52 C) for 2 hours before exposure to hot product streams.

If heating force to a minimum of 125 F is necessary, allow the application to cure normally at room temperatures of approximately 77 F (25 C) for 12 hours. Failure to do this will impair final cure and will also risk severe sagging and running when fresh material is exposed to temperatures of 125 F prior to initial hardening.

TECHNICAL PROPERTIES

PROPERTIES	Values
System type	Epoxies, Aliphatic Amines
Pigmentation	Color /Inert/ with fibrous reinforcement
Color	Standard gray blue - others available
Finish	Light texture
Thinner	Not necessary
Cleaner	MEK or dilution lacquer
Ratio	1,0/1,0 v/v
Induction time	Not required, may be used immediately after mixing
Pot life	Approx. 40' / 77 F
Flash Point	Over 200°F
Solids by Volume	100%
Spread rate/Gal	40 sq. ft./gal @ 40 mils rec. U/W application rate
Drying time (dust free)	4 hours at 77 F
Drying time (for service)	14 hrs. light, 72 hrs. heavy
Application method	Trowel, “Pool float”, mitts
Storage conditions	Normal, Freezing OK

SAFETY PRECAUTIONS

This is a hazardous material if misused. Read and understand the Material Safety Data Sheet (MSDS) before use.

TECHNICAL SERVICE

For any technical questions regarding the use of our products, let us support you by contacting our technical sales department.