

FREQUENTLY ASKED QUESTIONS

QUESTIONS AND ANSWERS ABOUT USING ENVIROPEEL MATERIAL AND EQUIPMENT

General:

Question: How does the Enviropeel Thermoplastic System work?

Answer: Enviropeel is a thermoplastic system involving two parts - our mobile application equipment and the Enviropeel chipped material, otherwise known as EP. EP is spray applied, allowing application to any size or shape of substrate. The material provides active lubrication and surface protection within a close-fitting protective coating.

Question: What are the primary benefits of Enviropeel?

Answer: Equipment protection, including rotating equipment such as bearings, corrosion prevention and long-term storage protection.

Question: Does the coating bond or adhere to surfaces?

Answer: No, EP only bonds to itself and does not bond to the substrate. This characteristic allows the spread of inhibitors across the substrate and makes it very effective when protecting rotating equipment. In other words, Enviropeel encapsulates while forming a protective barrier.

Question: Is Enviropeel cost-effective and how much maintenance does it require?

Answer: Our customers are seeing typical savings of up to 85% compared to current maintenance cost with no added requirements other than visual checks for damage. Bearings and other rotating equipment properly protected with Enviropeel typically experience 500% life increases.

KEY BENEFITS

Increase equipment life by 500%

Prevent contamination and corrosion

Reduce maintenance costs by 85%

Eliminate failures in stored equipment

Equipment and Material:

Question: How does the application unit work?

Answer: The application unit is a digitally controlled mobile unit with multiple heating zones that utilizes a powered hose and handheld applicator to spray material.

Question: How long are the hoses?

Answer: Hose lengths can be up to 60 feet. Each unit is supplied with a standard-length hose to suit its capacity, see [Equipment Overview](#) for further details.

Question: How mobile is the application unit?

Answer: All units are self-contained and extremely mobile, see [Equipment Overview](#) for further details.

Question: What are the power requirements for the application equipment?

Answer: Power requirements vary by mobile application unit, see [Equipment Overview](#) to confirm specifications and requirements.



Question: What type of maintenance does the equipment require? Is it necessary to purge hose after each use?

Answer: Periodic cleaning of the tank and filter system is required as part of the normal maintenance program. Cleaning of the exterior of the machine is also recommended. No, it's not necessary to purge the hose after each use. The hose has a heating coil that reheats solid material when machine is reheated.

Question: How is the Enviropeel material supplied?

Answer: EP comes as loose, easily handled chips packed in plastic buckets.

Question: What colors of EP are available?

Answer: Our most common colors are Blue and Gray but it's also available in Red, Yellow, Green, Black and White. Minimum quantities are required for any color other than Blue or Gray.

Question: Can Enviropeel bond to itself if a small repair is required?

Answer: Yes, when reheated the coating will bond to itself after application.

Question: How abrasion resistant is Enviropeel?

Answer: Although Enviropeel has durable characteristics, in highly abrasive or impact environments, a secondary urethane coating is recommended and sold separately.

Question: What is the life of the coating?

Answer: The coating typically will last as long as the equipment. If not damaged, we have seen the coating last in real life situations for over 12 years.

Question: Is Enviropeel environmentally friendly?

Answer: Yes, not only are its components environmentally safe and recyclable, Enviropeel contains no solvents or volatile organic compounds.

Question: Is Enviropeel FDA approved, and can it be used in food environments?

Answer: Although Enviropeel has not yet been approved by the FDA, it is often used outside of food contact areas.

Question: Can Enviropeel withstand chemicals?

Answer: This depends on the chemical and the conditions. Enviropeel has excellent resistance to splash contact from caustic soda solutions and most acids. For a complete answer, we would need specific details of chemical type, concentration, and temperature.

Question: Is Enviropeel flammable?

Answer: Enviropeel is classified as non-flammable but does become combustible above 400 degrees Fahrenheit. Under normal circumstances, ignition of Enviropeel only occurs when in contact with an open flame.

Question: What is the dielectric strength of Enviropeel?

Answer: Its dielectric strength as measured by an Elcometer 105 DC holiday detector is 40KV/mm.

Question: Does Enviropeel conduct electricity?

Answer: EP does not conduct electricity and is a very good electrical insulator. For this reason, it will not allow electrons to pass through the coating between flange halves, for example, inhibiting galvanic effects.

Application Process:

Question: What surface preparation is required?

Answer: Minimal surface preparation is required. For existing corroded substrates, a wire brush preparation is sufficient to remove loose flaking rust or paint particles. Pre-treatment oil is available and used on a case-by-case basis where corrosion layers remain within the encapsulation.

Question: What are the maximum and minimum substrate temperatures on which Enviropeel can be applied?

Answer: Maximum substrate temperature is 200 degrees Fahrenheit. Enviropeel has been successfully tested down to -80 degrees Fahrenheit.

Question: How quickly can coated items be ready for use?

Answer: EP cools rapidly and should be safe to touch within a few minutes. We recommend waiting 15 minutes before operating rotating equipment after coating.

Question: Does the application process require any protective safety wear?

Answer: Yes, standard personal protective equipment (PPE) should include a minimum of safety glasses or full-face visor, gloves, safety shoes and coveralls.



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Question: What sort of ventilation is required?

Answer: Normal shop/factory environments have adequate ventilation. The fumes created in the melting process are non-hazardous. The mineral based oil vapors created in melting process are non-hazardous.

Question: What is the application temperature?

Answer: Enviropeel is spray applied at 338° Fahrenheit.

Question: Can contaminated material be reused?

Answer: Filters in the application units will filter minimally contaminated material but heavily contaminated material should be discarded.

Question: What special training is required to apply Enviropeel?

Answer: All applicators must complete training conducted by a certified trainer. The training includes proper application techniques, safety, equipment maintenance and troubleshooting.

Equipment Protection, Corrosion Prevention & More:

Question: How can a shaft and bearing operate when encapsulated with Enviropeel?

Answer: EP only bonds to itself and does not bond to the substrate. Once coating has cooled, equipment can rotate freely inside the self-lubricated protective coating.

Question: Will Enviropeel insulate equipment and cause overheating?

Answer: No, Enviropeel dissipates heat very well and does not cause an appreciable increase in bearing temperatures. In some cases, equipment temperatures are lower since contamination (which causes heat) is no longer present.

Question: How does grease escape from the bearing?

Answer: On pillow block bearings, there is a natural relief point around the base of the coating and bearing. The grease will find the path of least resistance.

Question: Can EP users reduce or eliminate greasing over the life of the bearing?

Answer: Yes, most customers are over lubricating to purge contamination, and this becomes unnecessary after protection with Enviropeel.

Question: Would we be able to use heat or vibration sensors through the layer of Enviropeel?

Answer: Thermal heat sensors are fairly accurate through the coating. Vibration sensors can also be used.

Question: Can Enviropeel be used on equipment other than bearings - such as a gearbox or a bolted assembly?

Answer: Absolutely! One of the best qualities of Enviropeel is the versatility of the coating. We work with our customers daily discussing new and creative applications.

Question: Does the coating provide corrosion control for the life of the system?

Answer: ASTM Hot Salt Fog tests show protection lasting for the equivalent of 30 years. EP's built-in corrosion inhibitors are especially effective against dissimilar metal corrosion.

Question: Is Enviropeel resistant to UV?

Answer: Yes, it has been tested to ASTM G154 and achieved excellent results. No cracking or flaking with only a slight surface color change. Enviropeel will effectively protect in high UV environments.

Question: Can Enviropeel be used to seal leaks in our conveyance system?

Answer: It is often used to seal around shafts and openings in sheet metal where the rotating shaft enters a housing and there is a leakage gap where materials leak out and onto the shaft/bearing assembly. The nature of Enviropeel is not to bond with anything except itself, so some leakage points may not be suitable applications.

Question: Can EP be used on piping being placed underground?

Answer: Yes, however, care must be taken during backfill to prevent damage to the coating.

Question: Can Enviropeel be painted over?

Answer: Better to color the material to match customer requirements, but painting is possible on weathered EP.

Summary:

Enviropeel fulfills every requirement for successful equipment protection, offering tremendous cost savings and incredible flexibility for a wide variety of applications and industries. In addition to protecting flanges and pipes, it can also be used to protect rotating equipment such as bearings and gearboxes as well as stored equipment (mothballing). Enviropeel represents a major step forward in the ability for industries to finally prevent the enormous costs and damage caused by corrosion and contamination.



Enviropeel USA · 1-317-631-9100 · info@enviropeelusa.com

www.enviropeel.com

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