

Hardcoat

from Centek Marine



One of the things that makes a Centek Marine metal riser unique is our proprietary hardcoat process. Gases that run through an exhaust system are very hot – sometimes up to 1000 degrees! Therefore proper insulation is key in an exhaust system.

OVERVIEW

A process called hardcoating has been replacing the cumbersome, removable blankets in the marine exhaust market. The hardcoat process is completed by adding layers of fiberglass insulation directly to the outside of the stainless steel riser. Hardcoating is suitable for pieces of the riser that are static and do not need any movement or give.

PROCESS

- Fiberglass insulation is fitted.
- Centek wraps a proprietary and specially formulated pre-impregnated fiberglass cloth around the insulation.
- The riser cures in an oven to a slightly textured but smooth form that is virtually indestructible.
- Thickness ranges from 1.5" – 4.00"
- The resulting hardcoat protects crew members and lowers the overall engine room temperature

Benefits Of Hardcoat

- ✓ More rugged and durable than removable blankets with a high-end appearance
- ✓ Faster and easier to install in tight engine room spaces
- ✓ Very low maintenance
- ✓ No downstream effect on engine air filters, whereas blankets typically deteriorate and clog filters
- ✓ The hardcoat protects the raw, metal riser from (potentially flammable) leaking fluids, harsh seawater environments, and other hazards inside the engine room
- ✓ Substantially longer life span than traditional, removable blankets

Frequently Asked Questions

-
- 1. Is there any warranty on the hardcoat?** The permanent hardcoat insulation comes with a 3-year warranty.
-
- 2. Are there any particular service procedures necessary to maintain or prolong the system's life span?** Regular visual inspections to identify and address potential damage promptly are recommended. Blankets should not overlap with the hardcoat, as improper installation can lead to premature wear.
-
- 3. Can the system tolerate getting wet?** Yes, the system is designed to tolerate some exposure to water.
-
- 4. What is a typical life expectancy barring physical damage?** The typical life expectancy is 10+ years, provided there is no physical damage.
-
- 5. Is the life expectancy affected by exhaust temperature?** The hardcoat is engineered to withstand high exhaust temperatures, so normal operating conditions will not significantly affect its life expectancy.
-
- 6. Can it be repaired if it gets damaged, and if so, can it be done in place (assuming there is access)?** The hardcoat is very durable and designed for a rugged environment. If damage occurs, onsite repair is possible. Minor damage that results in cracks on the hardcoat can be repaired onsite with high temp 2-component epoxy. Major damage cannot be repaired onsite on-site due to the oven cure required. Centek can repair if/when major damage occurs.
-
- 7. What is Centek's repair procedure?** In most cases, we receive what we call "samples," where the damaged section of the riser is removed from the vessel and shipped to us for assessment. If the damage is limited to one section of the hardcoat, we cut out the affected area, repair it, and then apply another wrap around the entire riser to ensure a uniform appearance. If needed, we will cut the damaged hardcoat off and then relag it. Most frequently, such issues arise due to improper blanket installation.
-
- 8. Is the life expectancy affected by duty cycle?** The life of the hardcoat is not defined by a set number of hours, provided there are no installation errors. Hardcoat is therefore suitable to high hour operations.
-
- 9. What maintenance is required on the hardcoat?** The hardcoat does not require any additional treatment or reapplication. It is fully cured during the manufacturing process, ensuring durability. The coating does not degrade over time on its own. Improper blanket installation or other mechanical damage can impact the lifespan or need for maintenance.
-
- 10. When blankets are installed on flexible portions of the riser, is smoking normal?** Yes, some smoking does occur after initial installation. This is perfectly normal and will go away within a few hours.
-