

Firwin HC Hard Coat Insulation – FAQ's

One of Firwin's increasingly popular insulation products is our Hard-Coat Insulation. Firwin HC Hard-Coat insulation is a permanent, high temperature composite insulation. It is ideal for engine compartment components requiring long-term exposure to high temperatures, where the ability to remove the insulation is not required.



The following is a list of frequently asked questions (FAQs) that we have assembled, which should be of interest to both existing and potential users of this unique insulation product:

1. What applications are best suited for Hard Coat insulation?

Firwin HC is a permanent insulation, so the first criterion to consider is if the part in question will need to be accessible for maintenance purposes. If the answer is yes, then a removable insulation blanket would be a better alternative.

Hard Coat does well in confined spaces, and completely covers the insulation material, so there are space constraints, or if the application is such that there is the possibility of oil coming into contact with the part in question, then again Firwin HC may be appropriate. Please see the following link where this particular question has been dealt with in more detail: <http://www.firwin.com/pdf/firwin-faq-hard-coat-removable-insulation.pdf>

2. How durable is Firwin HC? How long will it last?

Because of the wide variation of demands during use and operation of equipment onto which Hard Coat has been installed, combined with the fact that it is a relatively new product, it is difficult to say precisely how long Firwin HC will last. That being said, Firwin HC has been designed to offer a durable and long lasting insulation, and feedback thus far has been generally positive.

Due to the nature of the materials used in the manufacture of Firwin HC, some loosening may occur over time during engine use as a result of expansion and contraction of the engine part due to heating and cooling.

3. What effect, if any, will Firwin Hard Coat have on the life of the engine part?

Firwin HC is a product designed for safety of personnel and to aid in the protection against fire of expensive engines and equipment. This is accomplished by insulating exposed high-heat components such as engine manifolds and turbos. As Firwin HC is a relatively recent product, there is yet any concrete evidence to confirm whether or not Firwin HC will reduce the life of an engine part. Although the possibility does exist, our customers are willing to assume this risk as it is outweighed by the benefits of Firwin HC.

4. Can Firwin HC Hard Coat be covered / shielded with other insulation or shielding products?

Hard Coat insulation should not be covered / shielded with other insulation or shielding products (i.e. insulation blankets, heat shields, etc.). Any product that will retain heat or reflect the heat onto Firwin HC can raise the temperature of the outer shell to beyond its designed level, thereby causing the outer HC shell to deteriorate.

5. What thicknesses are available with Firwin HC?

Firwin HC is available in both 1/2" and 1" insulation thicknesses. Most applications use 1/2" thick insulation because of limited space available around the parts to be insulated.

6. What is the maximum temperature rating for Firwin HC?

Firwin HC can be used for both high temperature diesel and gas applications. The insulation material used in Firwin HC is rated at 1200°C /

2192°F. In practice, most applications that use Firwin HC rarely see temperatures above 650° / 1200°F, allowing for effective heat reduction from Firwin HC at ½” insulation thickness.

7. What is the lead time for Firwin HC?

Firwin HC has a typical lead time of 2 weeks.

8. How do we ship our parts to Firwin for Hard Coat application?

- When sending the parts, send the bolt sleeves/spacers as well.
- Disassemble the turbo. Firwin requests that customers send turbos with hot housing only. The air intake side needs to be removed for the HC process. Include clamps if possible.
- Send with plenty of photos of the complete exhaust arrangement. Anywhere clearance is an issue (within 1” of the part), please take detailed pictures.

9. Are there any customs / border crossing issues that I need to be aware of, if sending the parts from outside Canada?

When sending engine parts to Firwin to be coated with Firwin HC, there are certain customs requirements that need to be followed to ensure that there are no delays at getting the parts across the border. A customs invoice, and (if shipping from the U.S. or Mexico) a NAFTA certificate need to be prepared and accompany the parts. For more information on how to prepare these documents, please [click here](#)

10. What is the warranty for Firwin HC Hard Coat?

Firwin Corp warrants its products to be free of defects in material and workmanship at the time of delivery. Our warranty is limited to the replacement of insulation product found to be defective within ninety [90] days from date of delivery. This warranty is only valid provided the product is used within the design and material limitations for the specific operating conditions, as agreed at the time the order is placed, and is subject to correct installation, regular scheduled inspection and normal wear and tear. For more information on our warranty, [click here](#).

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