

# Bradgate Containers - Case Study

## Project Type

Industrial - Shipping Containers - Insulating The Underside Of A Container

## The Project

We were approached by Bradgate Containers in Winter 2019 to provide insulation to the underside floor area of 5 shipping containers for a prestigious project they were undertaking for the Honda Formula 1 Engine Company.

Bradgate are specialists in the design, manufacture, complete fit-out and installation of containers, purpose built modules and enclosures, based in Loughborough, UK.

The purpose of the install was to provide a seamless thermal layer of insulation to remove cold thermal bridging and to ensure that the containers did not condensate in extreme weather.

## The Specification

The corrugated nature of shipping containers can make them difficult to insulate seamlessly with a pre-manufactured insulation such as rigid-PIR. In order to provide a thermal protective layer and anti-condensation barrier, we specified 25mm of insulation for this project.

To comply with the construction requirements at Bradgate, we offered maximum flexibility to their build schedule by agreeing to carry out the install over 2 separate visits. We worked with the team at Bradgate Containers to provide access requirements for carrying out a safe, timely manner through conducting a pre-install survey.

On commencement of the installation, the team at Bradgate Containers managed to safely elevate the containers to allow access underneath, ensuring that there were no health and safety risks.

**As with any metal surface, particularly when heated on the inside, there is a high risk of condensation forming. Shipping containers are limited on space, therefore, the right insulation solution should provide optimum performance per inch.**

The corrugated nature of shipping containers can make pre-manufactured insulation such as PIR, difficult to apply and this is why we advise a Closed-Cell spray foam as the best solution for such structures.

With limited internal space, the airtightness of spray foam is particularly beneficial when used in shipping containers as it eliminates the potential for thermal bridging. This removes the effects of heat loss through cold surfaces and helps prevent condensation.

A Closed-Cell Spray Foam application, when installed properly, should live with the life of the shipping container and is guaranteed for a minimum of 25 years.

## The Installation

On the day of install, our team arrived at the site in the morning to prepare the area for insulation and protecting other items from any over-spray that might occur during the process.

With the shipping containers prepared and elevated safely off the ground, our team were able to mobilise under the container and carry out the application of the closed-cell insulation to an agreed depth of 25mm.

Although the weather was cold and this affects the speed of install, the first two containers were completed in one afternoon with the return visit for the remaining containers, taking place a few weeks later.

# Client Feedback

This was an important project for the team at Bradgate Containers and we chose ThermoFoam for our installation because they were able to handle our initial enquiry and talk us through the process, demonstrating knowledge and safe working practices.

We were impressed with the team who came to survey the containers and we discovered that they would also be the same team who would carry out the installation, therefore, we felt that it was useful to talk about the practicality and process of install.

When it came to the day of install, the ThermoFoam team worked diligently to provide the solutions we had anticipated, leaving us confident in using them for future installs. Throughout the process, we have also gained some good knowledge of how Spray-Foam Insulation might be suitable for future projects here at Bradgate Containers.