



# Press Release

## Cool ceramic coating increases fuel capacity for endurance race car

*Cooling effect of Zircotec's thermal barrier prevents air locks to increase tank capacity by 16 litres*

A thermal barrier ceramic coating used on a Honda Civic race car has allowed its team to realise the true capacity of its petrol tank, helping it achieve a best ever 6<sup>th</sup> place in the Britcar 24 hour race. Using Zircotec's exhaust coating permitted the team to fill the car with an extra 16 litres of fuel per stop. This in turn, allowed the car to run for an incredible three hours between stints, resulting in a class win and be the first front wheel drive car home.

"In the past we have struggled to get more than 94 litres of fuel into the car due to air locks in the warm fuel tank," says team manager Simon Mason. "This year we could fill it right up to our 110 litre allowance." The team originally approached Zircotec to coat the Honda's exhaust to reduce cockpit temperatures. Endurance racing requires drivers to stay focussed and comfortable for up to three hour stints including the challenging night time driving. Zircotec's coatings have been proven to inhibit the transfer of heat from exhausts to reduce surface temperatures by 170°C and further testing has shown cabin temperatures can be comfortably lowered. Whilst developing an effective solution for the Honda's cabin, Zircotec suggested it could also keep the fuel tank cooler too.

"Zircotec's coating has a thermal efficiency of less than 1.7 W/m K (compared with 4 W/m K for alumina) and is used by race engineers to make drivers more comfortable and safe," says motorsport manager Stuart Clarke. "Customers use our proven coating to prevent fuel vaporisation in the engine bay, but when the team explained the issue with the fuel capacity, we felt coating the exhaust close to the fuel tank could solve their problems," Zircotec can create a separate heat shield but in this case all that was required was to plasma spray the Honda's exhaust around the fuel tank area, a fit and forget solution that is more durable and takes up less space than wrap (increasing airflow to further cool the exhaust).

The team was also delighted with Zircotec's rapid turnaround, the firm offering an express service when time is tight. "The team is so pleased with the results, for both reduced cabin temperature and solving the fuel tank fill problem, that it is sending a Porsche Carrera Cup exhaust to Zircotec to be coated," concludes Clarke.

### Press Enquiries

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### Photographs

Pictures are available electronically from the press agent.

	<p><i>Cooling effect of Zircotec's thermal barrier prevents air locks to increase tank capacity by 16 litres.</i></p> <p><i>Zircotec's ceramic thermal barrier technology allowed the car to run an incredible three hours between stints, resulting in a class win and first front wheel drive car home at the 2008 Britcar race.</i></p>
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