

MIST benefits foundry industries

Thu, 08/31/2006 - 8:00pm

by

2006 R&D 100 Winner

The **Metal Infusion Surface Treatment (MIST)** is an advanced, low-cost infused coating technology that is applied to finished industrial components resulting in improvement in their life and performance. MIST has been proven applicable to reducing metal-casting die wear and checking, reducing friction coefficients on certain materials, and acting as a host for catalyst ions for high- temperature diesel engine exhaust emissions treatment. This platform is also applicable to both metal and ceramic components and is independent of any coefficient of thermal expansion mismatch issue.

The technology was created by developers from **C3 International, LLC**, Alpharetta, Ga.; **Oak Ridge National Laboratory**, Tenn.; **Hayes Lemmerz International Inc.**, Bristol, Ind.; **Surface Engineering Associates**, Cleveland, Ohio; **Infrared Heating Technologies, LLC**, Oak Ridge, Tenn.; **Magna-Tech Manufacturing**, Muncie, Ind.; **Advanced Materials Associates**, Breckenridge, Colo.; **Vitek Performance**, Atlanta, Ga.; **Pyromation, Inc.**, Fort Wayne, Ind.; **Delaware Tool & Machinery**, Muncie, Ind.; **Heinz North America**, Freemont, Ohio; **University of Tennessee**, Knoxville; and **North American Die Casting Association (NADCA)**, Wheeling, Ill.

Technology

Advanced, low-cost infused coating technology

Developers

[C3 International, LLC](#)

[Oak Ridge National Laboratory](#)

[Hayes Lemmerz International Inc.](#)

[Surface Engineering Associates](#)

[Infrared Heating Technologies, LLC](#)

[Magna-Tech Manufacturing](#)

[Advanced Materials Associates](#)

[Vitek Performance](#)

[Pyromation, Inc.](#)

[Delaware Tool & Machinery](#)

[Heinz North America](#)

[University of Tennessee](#)

[North American Die Casting Association](#)

Originally published in R&D Magazine, September, 2006