



## DURATEK\* Supermelt

High performance crucibles designed to provide longer life in aluminium fuel-fired furnace melting applications

# DURATEK Supermelt Crucibles



The DURATEK family of crucibles are designed to provide extended life in different crucible applications.

DURATEK Supermelt has been developed specifically to provide aluminium melting departments with the possibility to maximize melting capacity in gas or other fuel-fired furnaces and reduce furnace downtime.

The optimized chemistry of DURATEK Supermelt crucibles delivers superior critical mechanical properties - with increased fracture toughness and strength at high operating temperatures, and excellent resistance to oxidation.

Whatever the furnace melting practice, DURATEK Supermelt will provide consistent melting performance throughout the crucible lifetime.

## KEY BENEFITS

- + Overall longer crucible life
- + Reduced furnace downtime - fewer crucible change-outs
- + Reliability - eliminate unscheduled production interruptions
- + Reduced operational costs over the life of the crucible
- + Melting process consistency

# Foundry experience

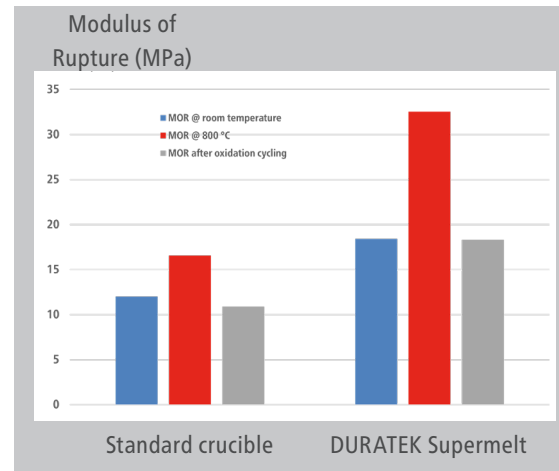
Lifetime and oxidation DURATEK Supermelt

## Experimental set-up

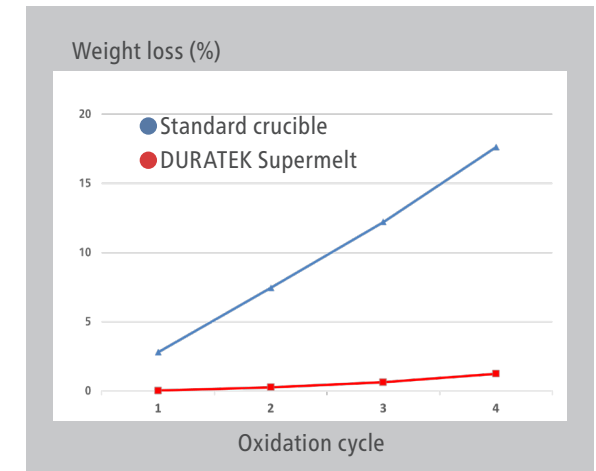
- + Aluminium melting in a gas furnace
- + Melting scraps
- + Comparing the lifetime to the competition's crucible
- + Assessing the oxidation

## Result

Significant improved lifetime.  
Almost no oxidation was visible.



Improved mechanical properties



Drastically reduced oxidation



Standard crucible

DURATEK Supermelt

# Quality control and research

## Research and development

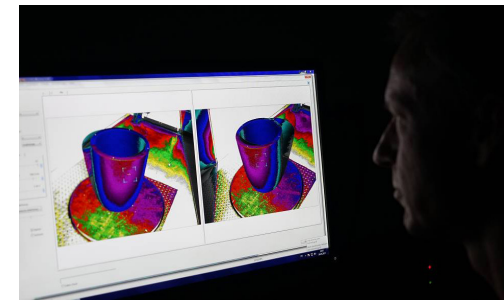
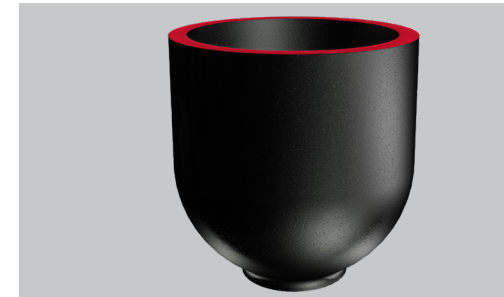
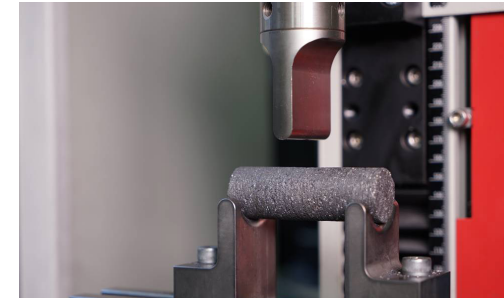
As the quality demands from end-users of castings increases, it is essential that foundry technology keeps pace. Foseco continually invest resources in the research and development of innovative solutions to the problems of today and tomorrow. Development laboratories work closely with in-house casting facilities to ensure new product developments fully meet the customer's needs.

## Consistency

Controlled and automated manufacturing processes ensure that products are supplied to a highly consistent specification, minimising batch to batch product variations.

## Quality assurance

Accredited quality assurance systems ensure optimal testing of finished products, and provides a framework for continual improvement and further process optimisation.



**FOSECO. THINK BEYOND. SHAPE THE FUTURE.**

\*FOSECO, the Logo and DURATEK are trade marks of the Vesuvius Group, registered in certain countries, used under licence. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system of any nature or transmitted in any form or by any means, including photocopying and recording, without the written permission of the copyright holder or as expressly permitted by law. Applications for permission shall be made to the publisher at the address mentioned.

Warning: The doing of an unauthorised act in relation to a copyright work may result in both a civil claim for damages and criminal prosecution. All statement, information and data contained herein are published as a guide and although believed to be accurate and reliable (having regard to the manufacturer's practical experience) neither the manufacturer, licensor, seller nor publisher represents nor warrants, expressly or impliedly: (1) their accuracy/reliability, (2) that the use of the product(s) will not infringe third party rights, (3) that no further safety measures are required to meet local legislation. The seller is not authorised to make representations nor contract on behalf of the manufacturer/licensor. All sales by the manufacturer/seller are based on their respective conditions of sale available on request. © Foseco International Limited 05/23.

**Foseco International Limited**  
Drayton Manor Business Park,  
Tamworth, Staffordshire,  
England B78 3TL  
Phone: +44 (0)1827 262021  
Fax: +44 (0)1827 283725  
[www.foseco.com](http://www.foseco.com)  
**Please contact your local Foseco team**