

Case Study Z2e² PRO Coating

-lower dross adhesion & increased crucible lifetime

Info

Product name: TBNS 587 Z2e² PRO Coating

Application: Aluminum sand casting

Casting parts: Casting parts for mechanical engineering, HVAC, medical engineering and robotics

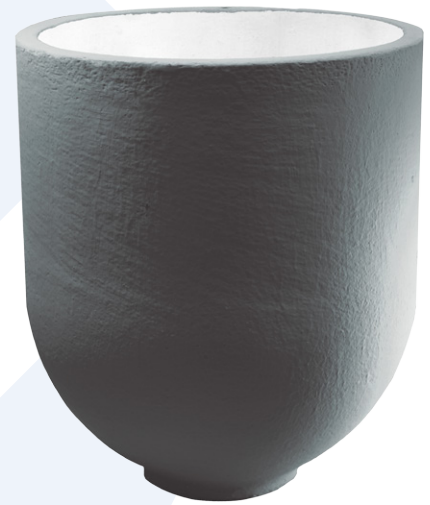
Parameters

Furnace: Gas fired

Capacity: Ca. 500 kg (1102 lbs.)

Temperature: 720 - 730°C (1328 - 1346°F)

Alloy: AlSi7Mg, AlSi10Mg, AlSi8Cu3 (226)



Benefits – Comparison of Z2e² PRO Coating against existing crucible*



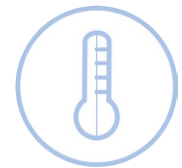
lower dross adhesion



increased lifetime



less crucible change overs



increased
thermal conductivity

*For more details, please refer to page 2.

Existing Crucible

The customer experienced a thick slag adherence, in spite of regular cleaning. This reduced the crucible capacity and also caused a drop in thermal conductivity. As a result, the crucible had to be replaced frequently.

TBNS 587 Z2e² PRO Coating

The customer tested the Syncarb Z2e² crucible with PRO coating. The service life of the crucible almost doubled to 220 batches (132 tons of metal) when compared with 'energy saving' crucibles from a competitor.

The crucible wall shows slight slag adhesion because the crucible was not cleaned after the last batch. The slag was so loose on the surface that it could be "peeled" by hand.

It is noteworthy that no loss of thermal conductivity was detected during operation.



Picture 1

Picture 1 TBNS 587 Z2e² PRO Coating after 220 batches.



Picture 2

Picture 2 TBNS 587 Z2e² PRO Coating after 220 batches.

Life Time

Product name	Lifetime	Lifetime improvement
Existing Crucible	110 batches	Lifetime doubled
TBNS 587 Z2E2 PRO Coating	220 batches	

Benefits

- Less energy consumption due to reduced dross adhesion
- Easier cleaning
- Improved lifetime
- Less number of crucible change overs
- Better thermal conductivity