

## Excel E Crucibles

### DESCRIPTION

Excel E is a high quality carbon-bonded silicon carbide crucible, manufactured using the latest roller-forming techniques and incorporating a special multi-phase glaze protection system.

This product range is designed for aluminum melting and holding applications.

### APPLICATIONS

EXCEL E is used for melting, holding and melt/holding of aluminum alloys in electric resistance and gas-fired furnaces.

### TYPICAL METAL CASTING TEMPERATURE

620 - 900°C (1148 - 1652°F)

### PATTERN RANGE

Excel E crucibles are available in a comprehensive range of shapes and sizes to suit most end user requirements. Custom sizes can be supplied by special request. Pyrometer hole in the wall and pyrometer pocket configurations are available to facilitate accurate measurement of metal temperature. A selection of fixed pouring spouts with optimized profiles is offered where required for tilting furnace applications.

Excel E crucibles can be supplied with unique PD coating system, which can assist with metal cleanliness and prevention of dross adhesion.



## EXCEL and HIMELT crucibles

### Description

EXCEL and HIMELT are high quality carbon-bonded silicon carbide crucibles manufactured using the latest roller-forming techniques and are designed to cater for a range of non-ferrous melting applications.

### APPLICATIONS

EXCEL: Intended for aluminum melting in oil-fired furnaces, melting copper-based alloys in gas and oil-fired furnaces, melting precious metals and non-ferrous alloys in low to medium frequency induction furnaces.

HIMELT: Provides enhanced performance in those applications where more arduous service conditions exist.

### TYPICAL METAL CASTING TEMPERATURE

EXCEL: 850 — 1250 °C (1562 — 2280°F)

HIMELT: 1000 — 1400°C (1830 — 2550°F)

### PATTERN RANGE

EXCEL and HIMELT crucibles are available in a comprehensive range of shapes and sizes to suit most end user requirements. Custom sizes can be supplied by special request. Heavy wall (HW) versions can be supplied for increased life in arduous applications and a selection of fixed pouring spouts with optimized profiles is offered where required.

EXCEL and HIMELT crucibles can be supplied unique PD coating system, which can assist with metal cleanliness and prevention of dross adhesion.



# SALAMANDER SUPER Crucibles

## DESCRIPTION

SALAMANDER SUPER is a high quality ceramic bonded clay graphite crucible range manufactured by plastic forming techniques

## APPLICATIONS

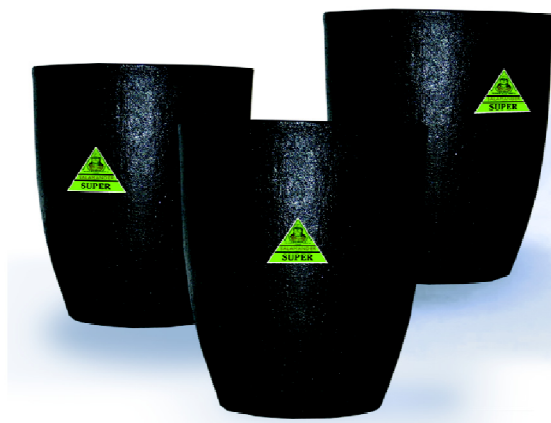
SALAMANDER SUPER crucibles are used to provide consistent performance in fuel-fired furnaces and medium / high frequency induction furnaces. The smaller sizes are typically used to melt precious metals, while larger sizes can be used for some ferrous alloys such as grey iron as well as to melt non-ferrous alloys.

## TYPICAL METAL CASTING TEMPERATURE

850 - 1600°C (1562 - 2912°F)

## PATTERN RANGE

SALAMANDER SUPER crucibles are available in a range of sizes as A-shapes, F-shapes (bilge), and E-shape cylinders to suit a wide spectrum of end user requirements. Ladle liners are also available in standard or bottom pour configuration



# GRAFIT Crucible

## DESCRIPTION

Graphite crucibles are rib formed CLAY-GRAPHITE crucibles characterized by high refractoriness and good thermal conductivity as well as very good thermal shock resistance and chemical resistance against fluxes. In order to meet the specific requirements of induction furnaces, a specialized range of CLAY-GRAPHITE crucibles with a specific modified electrical resistivity. This optimizes the coupling power of the crucibles especially in middle frequency induction furnaces (Frequency 1 kHz - 3 kHz) and avoids the risk of overheating

## APPLICATIONS

Grafit crucibles are suitable for all furnace systems for non-ferrous metal alloys and precious metals with melting temperatures between 400°C and 1400°C.

## TYPICAL METAL CASTING TEMPERATURE

400 - 1400°C (752 - 2552°F)

## PATTERN RANGE

Grafit crucibles are available in a wide range of sizes and shapes.



## Z2 SYNCARB Crucibles

### DESCRIPTION

Z2 Syncarb is a premium quality crucible manufactured by iso-static pressing that allows for very good chemical resistance against fluxes, excellent thermal conductivity and high levels of oxidation resistance.

Z2 Syncarb crucibles are high pressure, isostatically pressed CLAY-GRAPHITE crucibles.

Use a proprietary processing technology that results in a product with a very homogenous and high density structure. The clay-bonded Z2 Syncarb crucible provides very good chemical resistance against fluxes and excellent thermal conductivity. The inherent high mechanical strength allows the production of much larger crucibles. Other properties include outstanding oxidation resistance, high refractoriness and good thermal shock resistance.

Z2 Syncarb crucibles are especially suitable for use in zinc distillation applications as well as for melting and holding of copper and copper alloys and induction furnace applications.

### APPLICATIONS

Z2 Syncarb is designed to perform exceptionally well to melt and hold copper and copper alloys in induction furnaces as well as in zinc distillation applications.

Z2 Syncarb can also be used in some precious metal melting applications especially in Globar furnaces

### TYPICAL METAL CASTING TEMPERATURE

Metal casting temperature between 1000 - 1400°C (1832 - 2552°F)

### PATTERN RANGE

Z2 Syncarb crucibles are available in a range of shapes and sizes to suit most end user requirements. Certain sizes can be made available with pyrometer pocket to facilitate measurement of metal temperature.

A wide range of pouring lips are available



# SALAMANDER LADLE LINERS

## DESCRIPTION

CLEAN, GAS FREE METAL  
LONG LIFE, NO PATCHING  
EASY TO FIT

The liner should be set in the steel shell with Trimor Insulcast, which is a good insulator and sets firmly.

## MIXING TRIMOR® INSULCAST

Mix only sufficient for the job at hand

Mix with water – four parts by weight of Insulcast, to one part water



# PLUMBAGO FOUNDRY PRODUCTS

## DESCRIPTION

Resulting from many years of research and development, Salamander Plumbago products are manufactured from the finest quality natural graphite and bonded with selected refractory clays. Manufactured to the same exacting standards in our high quality clay graphite mixes, foundry accessories are suitable for use with a wide range of alloys at service temperatures of up to 1600°C (2912°F)

Exceptional Resistance to Metal & Slag Erosion

High Refractoriness

Very High Thermal Conductivity

Non-Wetted by Molten Metal & Slag

Very High Resistance to Thermal Shock

## LADLE BOWLS

The best method of taking molten metal samples and for skimming slag from induction furnaces and ladles. The products are supplied in a range of sizes from 275 cm<sup>3</sup> to 2000 cm<sup>3</sup> capacity. Designed for obtaining samples for spectrographic analysis, test bars and thermal analysis samples. Molten metal samples can be retrieved in a cost efficient way, free from contamination of dirt, which is close to temperature of the bulk metal being sampled

When supplied with a drain hole, ladles are the ideal means of removing slag and dirt from induction furnaces and casting ladles without resorting to the excessive use of slag coagulants which can be a source of defects in the final casting if they are not completely removed from the molten metal.

## TUBES

For “teapot” pour ladles, cupola receiver entries and spouts, cupola slagging box syphons, etc. Available in a range of sizes from 25 mm diameter to 254 mm diameter and lengths up to 1397 mm.

## LAUNDERS

Pre-fired shapes for the transfer of ferrous and non-ferrous metals from furnace to furnace or from furnace to ladle. Launderers provide a metal transfer system that has a high resistance to erosion and is virtually maintenance-free when installed properly. Available in many sizes to suit most runner systems. Also suitable for use as spouts in “teapot” spout casting ladles.



## **PYROMETER SHEATHS**

VG and VGI: Pyrometer sheaths offer an economical system for measurement of liquid metal temperature, and provide accuracy and good response. Available for both floating and fixed installations in a range of sizes to suit most applications.

HOT ROD: The Hot Rod thermocouple sheath range offers a premium thermocouple protection system that provides excellent service life and premium accuracy and response. Supplied ready for use with a threaded steel tube for rapid attachment to the furnace Pyrometry system. Thread type: 0.5" BSP.

## **LADLE STOPPERS**

Full line of Salamander Plumbago™ stoppers for bottom pour ladles available in a range of sizes and designs, stopper rod ends are used by attaching to a steel rod, which is sheathed with refractory tubes for protection from the molten metal. Will not stick to the ladle nozzle when lifted and will consistently reseal without leaks when closed off.

## **DEGASSING TUBES**

Simple and convenient tool specifically designed to meet the requirements of refiners and foundrymen for nitrogen de-gassing. Flushing the molten metal with nitrogen is a simple and inexpensive way to ensure that the melt is gas-free and helps ensure against gas porosity

## **TOOLS**

Plunger mixers, circular dippers, dip samplers, stirrers and skimmers. For stirring additions into molten metal. Plunger mixers are available with or without a steel reinforcing rod for additional strength. All plungers can be supplied with a steel reinforcing rod.