

# NEF

The HA product range



## Die Coatings

HA offers foundries a wide range of die coatings for gravity and low-pressure casting. Die coatings play a crucial role in both the outward appearance and internal quality of die castings. They

### Functions

The die coating prevents the melt coming into direct contact with the steel die and thereby avoids welding. It also makes it easier to fill the die and avoid cold runs. The die coating's specific insula-

transfer the contour of the steel die to the casting and influence the solidification rate of the melt depending on the type of die coating used.

ting effect allows the feeding process to be controlled and a dense structure to be achieved without internal defects (shrinkages).

### HA offers a wide range of die coatings:

From ultra-fine and low-insulation (for thicker-walled castings with the highest-quality, smooth surfaces) to rougher, high-insulation die coatings for very thin-walled castings with long flow paths,

HA has them all. And thanks to their lubricating properties, our die coatings also make it easier to remove the casting from the die.

Low insulating die coating			Good insulating die coating		
KS 83	○ White	Base and working coating	KS 94	● Green	Base and working coating
KS 92	● Cold: Yellow ● Hot: Red	Base and working coating	Eco Coat 183	● Grey	Working coating with lubricating addition
Eco Coat 182	● Bright blue	Working coating with lubricating addition	Eco Coat 185	● Grey	Working coating with lubricating addition
High insulating die coating			Release coating		
KS 81	● Red (Pink)	Base and working coating	KS 84	● Cold: Bright blue ○ Hot: White	Pure release coating with boron nitride
Eco Coat 186	● Beige	Runner- and Risercoating	Eco Coat 179	● Black	Pure release coating with graphite
			Schutzanstrich 855 W	○ White	Protecting coating for crucibles, launders, etc.

## Melt metallurgy for non-ferrous alloys

Every casting is only as good and mechanically resilient as the internal structural properties allow. In order to always get the optimum results from the alloy used in the melting / holding process,

HA offers a wide range of products for the melt treatment of all common non-ferrous metals (aluminium, magnesium, zinc, copper, lead).

## Cleaning and drossing salts

HA has a wide portfolio of products that meet all of our customers' requirements. They range from inexpensive salts that bind the oxides in the dross and separate them from the valuable aluminium, to special products for cleaning the furnace wall, to products adapted to specific alloys, which are free

of sodium, fluoride or calcium, for example. The type of furnace and the degassing and melt cleaning method can also play a role in selecting the best product. Our experts for this product area would be delighted to support you in identifying the right product for your processes.

Product	Application	Special features
Coverlux 0021	Drossing	Recommended for low temperature use >670°C
Exopure Al 135	Drossing	Lowest cost drossing, medium / highly exothermic
HMC 61	Drossing	Na free and Ca free, can be used in Flux Injector
HMC 11	Drossing	Highly exothermic
Ecoflux 152	Wall Cleaning / Refining	Environment friendly, Fluoride free. Can be used for chip melting (liquid cover). Furnace wall cleaning with applicator recommended
Ecopure Zn 21	Cleaning / Drossing	Low exotherm and low fume, forms dry ash

## Special salts

These agents are designed to perform a range of functions, such as removing certain unwanted elements from the melt. Special salts include, for example, calcium removers for aluminium (also available sodium-free), magnesium removers for

aluminium or aluminium removers for copper alloys. This product category also includes cleaning and drossing salts developed for more exotic non-ferrous metals such as lead, zinc and copper alloys.

Product	Application	Special features
Demagger B	Mg Remover	Removes Mg from Al alloys
Ecopure Al 170	Ca Remover	Removes Ca, Na & Sr; Na-free
Ecopure Al 171	Ca Remover	Removes Ca & Sr; inexpensive

## Grain refining and modification tablets

These easy-to-use tablets allow foundries to ensure that their castings achieve the desired microstructure later in the process. A grain refinement, as the name indicates, leads to a smaller grain size during solidification, thus enhancing the mechanical properties.

The modification only affects the Al-Si eutectic, which also benefits from the refinement: a considerable improvement of the tensile strength- and elongation values in sand and thick-walled gravity die casting.

Product	Application	Special features
Silifin 165	Grain Refinement	200 g
Silifin VM1655	Grain Refinement	500 g. Increased Boron content
Veralux SH 10	Na Modification	200 g. Introduces Na. Good reaction speed
Exomod Al 14	Na Modification	200 g. Introduces Na. Fast reaction speed

## Degassing tablets

Molten aluminium can solve large quantities of hydrogen, which is easily absorbed from the air or via contact with humid objects (casting tools, crucibles, etc.). In its solid state, the hydrogen solubility is substantially lower. As a result, hydrogen precipitates from solidifying aluminium in the form of

small bubbles – a bit like the process by which small bubbles are released when a bottle of sparkling water is opened. In order to reduce the hydrogen content in the molten aluminium, HA offers effective and easy-to-use degassing tablets that are plunged into the melt where they develop their full effect.

### Product

Ecogas 16

### Application

Degassing

### Special features

200 g and 500 g available. Low fume, hexachloroethane free

## Exothermic hot topping powder

These exothermically reacting powders are placed on the metal surface in the feeders immediately after mould filling, where they ignite quickly and release heat during the exothermic reaction.

They also provide an insulating layer after the exothermic reaction. This extends the time of liquid state in the risers and their feeding efficiency increases.

### Product

Luxotherm L9LT

Exofeed AI 413

Exofeed AI 416

### Application

Exothermic Feeding Aid

Exothermic Feeding Aid

Exothermic Feeding Aid

### Special features

For non-ferrous light metal and heavy metal castings

Highly exothermic

Moderately exothermic and medium smoke for small risers

## Auxiliaries

As a partner of the foundry industry, HA aims to be a full-range supplier for all areas in which foundry chemical products are used.

This also includes individual areas such as lubricants or coating materials for casting tools, etc.

### Product

HA Trennpaste CP 70

HA Trennpaste AI 72

Schutzanstrich 855 W

### Application

High-temperature release paste

Coating for pouring ladles made of grey iron and steel

Protecting coating for crucibles, runners, riser tubes, chills, etc.

### Special features

Metalliferous; for the lubrication of slider guides, ejectors and sliders

Oil based, brushable

Brushable as supplied, suitable for spraying when diluted with water

# HÜTTENES-ALBERTUS

CHEMISCHE WERKE GMBH

Wiesenstr. 23  
40549 Düsseldorf  
Germany

Phone: +49 211 5087 -0  
info@ha-group.com  
ha-group.com