

Metal treatment of Aluminium Alloys

Powder Fluxes

COVERAL 11 25 KG : Best in class Cleaning and Drossing powder flux for Aluminium alloys

COVERAL 11 (S) : Exothermic Cleaning and Drossing powder flux for Aluminium alloys

COVERAL 36 A : Na modification powder flux for Aluminum alloys

COVERAL 88 : Controlled exothermic furnace wall cleaning powder flux to remove oxide build up and protect refractories of walls

High efficiency granulated fluxes

COVERAL GR 2510 : Cleaning & drossing granulated flux for medium metal temperature in Aluminium alloys

COVERAL GR 2516 : Excellent Cleaning granulated flux for medium & high metal temperature in Aluminium alloys

COVERAL GR 7520 : Low temperature Granulated flux for Cleaning & Drossing of low metal temperature Aluminium alloys

COVERAL GR 2410 : High temperature granulated cleaning flux for Aluminium alloys



Speciality granulated fluxes

COVERAL GR 6511 : Na free granulated flux for medium and high metal temperature in Aluminium alloys

COVERAL GR 6512 : Na & Ca free granulated flux, special designed for piston foundries, Aluminium & Aluminium Magnesium alloys and foundries manufacturing safety critical components

Granulated fluxes for special applications

COVERAL GR 510 : Cleaning & Drossing economical granulated flux for medium metal temperature in Aluminium alloys

COVERAL GR 520 : Cleaning & Drossing economical granulated flux for low metal temperature in Aluminium alloys

COVERAL GR 530 : Cleaning & Drossing economical granulated flux for medium metal temperature in Aluminium alloys, Special designed for very small crucibles

Metal treatment granulated fluxes (Grain refinement and modification)

COVERAL GR 2715 : Na modification granulated flux for Aluminum alloys

COVERAL GR 2815 : Grain refinement granular flux for Aluminium alloys

COVERAL GR CRM : Combination Cleaning, Drossing, Grain refinement & Modification granulated flux for Aluminium alloys

COVERAL MTS 1584 : Na & Ca free granulated MTS flux, Titanium boron content grain refiner with cleaning & drossing for Aluminium alloys

COVERAL MTS 1582 : Na & Ca free granulated MTS flux, high Titanium boron content grain refiner with cleaning & drossing for Aluminium alloys

COVERAL MTS 1576 : Granulated Sodium based Flux for Modification in Aluminium Alloys

COVERAL MTS 1591 : Granular flux for Removal of Alkali (Ca, Sr, Na) from Aluminium



Metal treatment of Copper Alloys

CUPREX 100/100 M : Cleaning & Drossing powder flux for commercial copper nickel alloys

CUPREX BLOCKS 1 : Cleaning & Drossing flux in 1 kg block form for commercial copper & gun metal

CUPREX STD : Cleaning & Drossing powder flux for gun metals, tin bronzes and lead bronzes

CUPRIT 49 : Cleaning & Drossing powder flux for brass

CUPRIT 49 GR : Cleaning & Drossing flux for brass in granulated form for excellent recovery of Metal from Slag

CUPRIT 76 : Exothermic powder flux for ease of metal separation from slag and reduced loss of metal

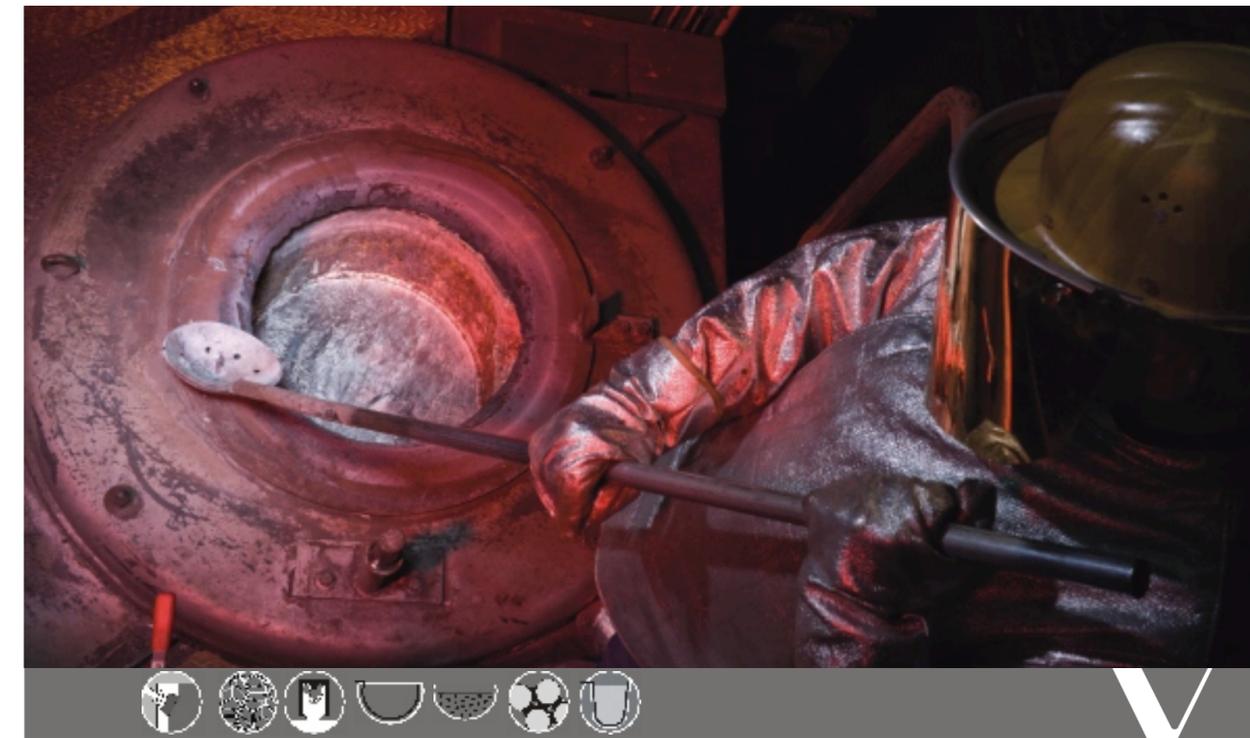
CUPRIT 8 : Cleaning & Drossing powder flux for copper and brass

CUPRIT BLOCKS 1 : Cleaning & Drossing powder flux for commercial copper & gun metal

RECUPEX 118 : Powder flux for melting fine material in copper and copper alloys

ALBRAL 2 : Cleaning & Drossing powder flux for Aluminium Bronze alloys

LOGAS 50 : Degassing Tablets for Copper Alloys



ALBRAL COVERAL CRUCIBLES CUPREX CUPRIT DENSITEC DEGASSING SHAPES DYCOTE ELIMAG FDU FLUSSUM FLUX INJECTOR MACHINE GASTEC HDU INSURAL ATL LOGAS MDU RECUPEX

Meeting challenges of the future ...
... with the latest products and processes

■ Innovative products ■ Access to international R&D ■ Premium quality ■
■ Global Technical expertise available locally ■



*FOSECO, the Logo, ALBRAL, COVERAL, CUPREX, CUPRIT, DENSITEC, DYCOTE, ELIMAG, FDU, FLUSSUM, GASTEC, HDU, INSURAL, LOGAS, MDU, MTS, RECUPEX and TERCOD 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.
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COMMITTED TO FOUNDRIES

- Energy Savings
- Improved Productivity
- Clean Metal
- Clean Environment
- Reduced Inclusion Related Rejections
- Customised Product Range
- Cost Effective Treatment
- Consistent mechanical and physical properties

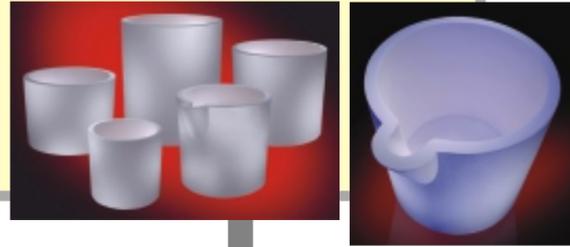


Process Control

DENSITEC : Process control tool for measuring density of Aluminum alloys.

GASTEK : Simple process control tool to indicate porosity in aluminium casting. Uses RPT Principle

INSURAL ATL : Highly insulating, precast lining for aluminium transfer ladle to minimize metal temperature drop and reduce inclusions



State of the art Degassing processes

All Rotary Degassing Units from Fosco are backed by an experience of selling over 700 Units in India and 3000 Units globally. The knowledge of patented technology Rotor Geometries and appropriate fluxes for specific applications and temperatures helps in maximizing the degassing and metal treatment results. All units are commissioned by a team of experienced and skilled team of Application Engineers using state of the art technologies for simulation of Degassing process and Hydrogen Measurement.

HDU : Hoistable Degassing Units for easy handling and excellent degassing in small crucible furnaces.

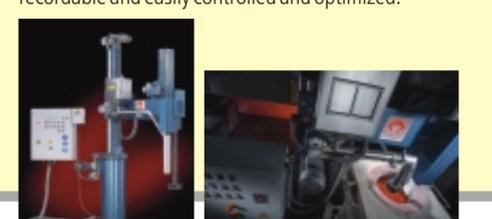
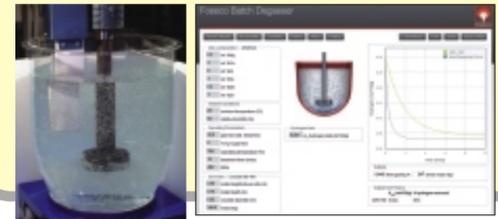
FDU : Stationary Degassing Units for best degassing results in ladles and furnaces

Fosco Degasser Model : Rotary degassing of liquid aluminium alloys is a widely used commercial process to control levels of hydrogen, alkali metals and inclusions in the melt, prior to casting. A comprehensive theoretical understanding of the kinetics of aluminium degassing has been established in the past twenty years.

A selection of different Fosco degassing rotors has been characterised in a comprehensive experimental program. Tests have been carried out in both water model and foundry trials. The study results in an Internet based simulation software for degassing processes in foundries.

MDU : Movable Rotary Degassing Units for superior degassing and in multiple furnaces located in different places. Rotary Degassing also helps in flushing out of suspended oxides. Available in a variety of tailor made sizes and transport modes, viz. Mounted on Manual Trolley, Battery Operated Pallet Truck, Electrical Motor Controlled Movement or Gear Box Controlled Horizontal Movement on a Battery of Furnaces in a line

MTS 1500 : MTS 1500 Units based on Vortex principle for best in class degassing and cleaning of Aluminium Alloys, with ROI of very quick return on investment. The MTS Units help reduce the process time and operator dependence. Results are consistent, reproducible, recordable and easily controlled and optimized.



Crucibles

TERCOD Crucibles : TERCOD crucibles have - **1.** Excellent mechanical strength for handling and usage in heavy melting applications. **2.** Excellent Thermal Shock resistance to sustain range of temperatures like melting and holding applications **3.** Availability in a range of sizes and shapes **4.** Better thermal conductivity giving better productivity and reduced energy consumption

TERCOD DURATEK ER Crucibles : Premium, Specially engineered Oxidation resistant crucibles to minimize top oxidation. Offer increased service life in Aluminium holding furnaces, typical of High Pressure Die casting holding furnaces. It is designed to be easier to clean, resist cracking, and extend crucible life.

TERCOD DURATEK FF Crucibles : TERCOD DURATEK FF* crucibles are long life erosion resistant crucibles engineered to maximize the mechanical strength and erosion resistance, peculiar to applications like Utensile manufacturing and Copper scrap melting. They are best suited for fuel fired applications and offer excellent flame attack resistance. The crucibles are easier to clean and resist cracking thereby extending life. They offer excellent resistance to attack by aggressive flux applications like Aluminium modification using Sodium.

CORRUGATED Crucibles : TERCOD Crucibles with specially designed surface offer extended life spans and superior thermal conductivity



Wide range of DYCOTE products for improving casting filling and soundness

DYCOTE 11 M Paste and Liquid : Water base graphite dycote for lubrication and cooling of moving parts and metallic cores in GDC and LPDC applications

DYCOTE 140 Paste : Versatile insulating die cavity coating with moderately textured surface finish

DYCOTE 14 (ESS) : Versatile insulating die coating with extra bonding and superior life

DYCOTE R 87 : Base or primar dycote

DYCOTE 34 Paste : Insulating riser coating

DYCOTE 34 ESS : Highly insulating riser coating with superior life

DYCOTE 39 Paste : Cavity and metallic core coating for excellent release and best possible surface finish

DYCOTE 6 : Medium surface finish, die cavity coating



Superior performance long life DYCOTE products

DYCOTE 140 ESS : Superior insulating die cavity coating with moderately textured surface finish and superior life

DYCOTE 1400 : Long life insulating cavity die coating for excellent productivity, with smooth surface finish

DYCOTE 3900 : Long life die coating with excellent surface finish and better release

DYCOTE 3600 : Long life insulating cavity die coating for excellent surface finish and productivity

DYCOTE 7029 : Highly insulating long life riser coating paste for improving feeding of risers in GDC

High performance Degassing shapes

DG Shape Baffle Plates : Baffle Plates for Degassing units and MTS 1500 to improve their process efficiency: Available in various lengths: 555, 595, 660

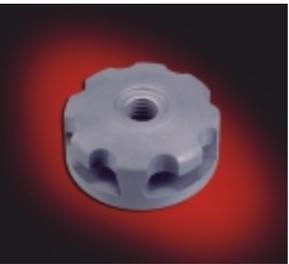
DG Shape CR Rotors : Pumping Rotors of Standard Geometry. Deliver the best degassing action. Available in sizes CR100, CR 125, CR 175, CR 180, CR 191., CR 210

DG Shape XSR Rotors : Patented design rotors with best in class mixing and degassing efficiency. Available in sizes XSR 100, XSR 175, XSR 191 and XSR 220

DG Shape CS Shafts : Threaded and Snap Lock Shafts for excellent control on the Inert gas flow and improved degassing efficiency. Available in a variety of sizes: CS 110, CS 635, CS 700, CS 810, CS 910

DG Shape CS Lance : DG Shape CS 1000 For lance degassing in difficult to degass furnaces

DG Shape TCW : Thermocouple sheaths in variety of lengths and nipple varieties: TCW 400, TCW 600, TCW 700, TCW 875 with 3/4" and 1/2" Nipples



Specially designed Fluxes for secondary plants and alloy makers (suitable for large baths)

FLUSSUM GR 510 : Highly efficient Cleaning & Dressing granulated flux for big bath furnaces, Special designed for Aluminium Ingot, Aluminium Rod and Aluminium extrusions Manufacturers

ELIMAG 3 : Magnesium removal powder flux for Aluminium and its alloys

ELIMAG 3 GR : Environmentally friendly granulated flux for Magnesium removal for Aluminium alloys

Flux Injector Machine : Combined degassing of Large baths by inert gas (Nitrogen or Argon) together with Specially designed Flux injection. For best in class results of metal cleaning and degassing with maximum yield of metal from dross.

