



Bristol – Centralizing our Activities for the United Kingdom

The UK is one of our largest markets within Europe. A-Gas Bristol has represented SFD's product lines (inorganic and organic fluorides, refrigerants and foam propellants) in this area since the beginning of 2002. Its marketing activities are also supported by state-of-the-art transfilling equipment and a warehouse.

Around 30 employees work in Bristol in administration, stock keeping and production. A-Gas UK's facility at Portbury/Bristol is located close to the M4 and M5 motorways just outside Bristol. The site was extended in 2003 and includes a modern two-storey office building which houses management, sales and administration personnel in a modern environment incorporating the latest IT facilities. Apart from its UK headquarters, A-Gas has subsidiaries in South Africa, Singapore and Australia. In "Down under", A-Gas represents also our NOCOLOK[®] Flux product range.

For NOCOLOK[®] there are three contacts at A-Gas: Ken Logan and Erika Wagner for commercial, and Derek Davies for technical issues. Our customers in the UK and other countries profit from Derek's many years of brazing experience.



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The NOCOLOK[®] storage – for reliable supplies

The warehouse for our NOCOLOK[®] product range has been controlled for several years now by a highly modern high-bay storage system at Solvay Fluor's major plant in Bad Wimpfen near Stuttgart.

The warehouse has space for around 2,400 pallets and can be operated by a small number of staff. Special pallets are used to optimise space utilisation in the ware-

house. The aim is to keep approximately 1.5 month's consumption in stock ready for prompt delivery.

The computer-based system ensures that all NOCOLOK[®] product types are stocked according to customer needs and dispatched "first-in first-out". This guarantees full compliance with all QS 9000/TS 16949 requirements.



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Solvay Fluorides LLC:

New Location in Texas

Since the beginning of 2004, our U.S. sales office has been operating from Houston. Its move from St. Louis became necessary when Solvay S.A. Brussels decided to restructure the chemical sector in the USA. Because Solvay's corporate headquarters are located in Houston, Solvay Fluorides is now integrated within the consolidated group of chemical companies – a compact team, ready to make quick decisions whenever necessary. The well-known contacts for NOCOLOK[®] have not changed.



Tips & Tricks:

"How to evaluate flux load?"

In case of heat exchangers it is first necessary to measure the area being fluxed. To simplify the calculation, the louvers on the fins and the radius of the fins can be ignored.

Imagine then the fin pulled out of the heat exchanger and straightened out to form one long strip. Similarly, the surface area of the slots in the header can also be ignored.

Remember that in calculating the surface area of the heat exchanger, there are 2 sides to every tube, 2 sides to every fin and 2 sides to the headers. The total surface area is then expressed in m²: All dimensions are in meters (m) to yield a surface area in square meters.

Header:

For a cylindrical (condenser) header:

$$SA (m^2) = (2 \times 3.14 \times \text{radius of header}(m)) \times \text{length of header (m)} \times 2 \text{ headers}$$

For a radiator header:

$$SA (m^2) = \text{length of header (m)} \times \text{width of header (m)} \times 2 \text{ (sides / header)} \times 2 \text{ (headers)}$$

Tubes:

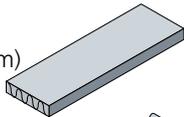
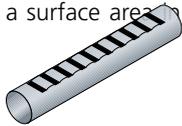
$$SA (m^2) = \text{width of tube (m)} \times \text{length of tube (m)} \times 2 \text{ (sides / tube)}$$

Fins:

Ignore the louvers on the fins.

$$SA (m^2) = \text{width of fin (m)} \times (\text{fin height (m)} \times \text{number of fin legs / tube}) \times 2 \text{ (sides / fin)} \times \text{total number of fins}$$

$$\text{Total surface area in m}^2 = \text{SA headers} + \text{SA tubes} + \text{SA fins}$$



NOCOLOK® NEWS

presents information for NOCOLOK® users.

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Flux Loading:

To determine the flux loading, a degreased and thoroughly dry heat exchanger is weighed. The heat exchanger is then run through the fluxer, blow-off and dry-off section of the furnace. The heat exchanger is removed just prior to entering the brazing furnace and weighed again. The flux coating weight is then determined using the following formula:

$$\text{Weight of unit fluxed and dried (g)} - \text{weight of unit un-fluxed (g)} \times \text{Surface area (m}^2\text{)}$$

To make sure that the flux loading was determined on a completely dry unit, run it through the dry-off section a second time and re-weigh.

Brazing events 2004

- **NARSA Show Nashville, USA,**
March 31 – April 4
- **SAPA China Seminar, Shanghai,**
April 22 – 23
- **3rd International Brazing Conference, Duesseldorf, Germany,**
May 26 – 28
- **LÖT 2004 Exhibition, Aachen, Germany,**
June 15 – 17
- **EABS Brazing Training, Solvay, Hannover Tec Center,**
September 1 – 2
- **Automechanika Exhibition, Frankfurt, Germany,**
September 14 – 19
- **AFC Holcroft Brazing Seminar, Detroit, USA,**
October 26 – 28
- **Essen Welding 2004, Beijing, China**
November 10 – 13

AHR HVAC Show in Anaheim, USA

The trade fair took place in January 2004 in Anaheim/California, USA. 1,600 exhibitors presented the most important innovations in air-conditioning, heating and refrigeration. With over 37,000 visitors, it is the most important event in this sector in the USA.



Solvay Fluor presented the complete range of innovative fluxes for aluminum brazing. Amongst the most interested visitors to the stand were the manufacturers of heat exchangers for air-conditioners. New regulations issued by the US Environmental Agency require manufacturers to produce even more efficient energy-saving devices. The Solvay Fluor Team was able to provide trade visitors with solutions to application-specific problems.



From left: D. Oetterer, Dan Lauzon, Werner Schmitt, Kim Machulis-Patino Solvay Fluorides and Solvay Fluor presenting the experimental brazing furnace

Aluminum Brazing Seminar, Tokyo

This seminar, titled "Development of the Technology of the 21st Century", sponsored by the Japan Metal Welding and Construction Association Inc. took place in October 2003. It was the 3rd event of this kind during the last 20 years – the last one took place in 2000. This clearly shows that aluminum brazing topics are also becoming more and more important in Japan. Around 100 participants – suppliers and produc-

ers – joined the conference. Tokyo is now number three in aluminum brazing trade fairs, behind Duesseldorf and Detroit.

The presentations and discussions at the conference mainly concentrated on raw materials, brazing methods, fluxes and applications. Others referred to components, weight reduction, and more efficient heat exchange, especially in the A/C sector.