Seminar Marking the 20th Anniversary of Institute of Materials Finishing in Ireland

Wednesday 12th October 2016.
CREST-DIT, FOCAS Institute, Camden Row, Dublin 8

The Irish Branch of the IMF first formed 20 years ago this year and is still actively providing Seminars in both the North and South of Ireland aimed at bringing relevant subjects to the forefront for local businesses and institutions. This Seminar, in conjunction with CREST, will bring forward a mix of subjects ranging from organic finishing, electrophoretic coating, novel anodising methods and pre-treatment procedures for promotion of adhesion. These topics will be of interest to those in aerospace, automotive, biomedical as well as general surface finishing. Also included, is an update on legislative pressures on the Industry relating to the REACH regulations and global impact, including Brexit. The IMF is well known for its training programmes and there will be an opportunity to discuss your needs with IMF trainers present.

The Irish Branch look forward to meeting Non-Members, Members, and representatives of Sustaining Member companies to promote the advancement of the industry in the Island of Ireland.

Members €70 (£60) Non Members €85 (£75)

For further Information please contact Ann Hopper email: ann.hopper@dit.ie or Greg Payne email: gsp120@aol.com

Next Enrolment date for Training Courses is 10th Feb 2017

Contact
David Meacham on 0121 622 7387
david@materialsfinishing.org
IMF Events

October 2016
14th Oct - Irish Branch Seminar

November 2016
2nd Nov - Advanced Engineering
29th Nov - AGM at Cobden Hotel, Birmingham

February 2017
10th Feb - Enrolment Date

March 2017
22nd-23rd Mar - Surface World

Southern Branch Events

October 2016
14th Oct - Beer and Skittles Night at The Northbrook Arms

Development in Pexa NDT Business

As well as being the official distributor of surface coatings and treatments to the aerospace, defence and electronic industries, Pexa also supplies products and services to the NDT industry. Pexa is the official distributor for NDT Products from Sherwin Babbco (Socomore NDT) and Sherwin Inc as well as the official distributor for Spectronics who manufacture the Spectroline range of inspection lights. Pexa have decided to expand their NDT team with the appointment of John Haslam who will provide a technical and support service to customers in the UK. John has over 8 years’ experience of hardness and conductivity testing and liquid penetrant inspection as well as 4 years’ experience in magnetic particle inspection. He said ‘I’m really looking forward to developing relationships with customers. NDT is a growing business for Pexa and I’m very pleased to be involved’.

Matt Lowthian, NDT Business Manager commented, ‘I am very pleased that John has joined the Pexa team. He brings with him an excellent working knowledge of the dye penetrant, magnetic particle inspection and ultrasonic fields. His input and enthusiasm with our current and potential customers will be invaluable’.

With the appointment of John, Pexa will be able to provide a more thorough service to NDT customers.

For more information, contact –
Jim Rowbotham, Managing Director
jim.rowbotham@pexa.com

Keep in Touch

Please make sure we have your contact details up to date. Any changes please contact David on 0121 622 7387 or email Helen@materialsfinishing.org
COLM Press Release

In May 2016, eight companies and two universities established a research consortium, partially funded by the UK’s Innovation agency, Innovate UK. The key objective is to develop and industrialise safe alternatives to chromate conversion coatings that are used for aluminium components within the Aerospace and Defence industries.

The current standard chromate conversion coatings use chemical substances that may be hazardous to human health and the environment and are controlled by regulations such as EU REACh. While a number of proposed alternatives may be available on the market, they typically do not provide the sufficient level of corrosion protection demanded by Aerospace and Defence products.

By benchmarking current coatings the consortium will define clear performance requirements for potential alternative coatings, which the project will aim to industrialise. Alternatives that are being investigated include those that are new to the market, those used by other industries and novel processes and techniques currently under development by academia. Furthermore, the consortium will aim to link lab scale testing to real-life corrosion in order to develop a novel model that can ascertain how long the alternative coatings should last in service. No current models exist to predict in-service life of these technologies. Using safer alternatives will ensure UK and EEA business continuity for manufacture, overhaul and repair of Aerospace and Defence products as legislation forces the current technologies to become obsolete.

The project expresses the UK’s role as a key player in the industry and will drive innovation in a technology that has not been advanced sufficiently to meet current safety requirements. Additionally, the project also demonstrates the continuing commitment by the industry to remove potentially hazardous substances from its manufacturing processes, OEM products and MRO activities.

The three year project was bid for within the Highly Innovative Technology Enablers in Aerospace (HITEA 3) competition and the research consortium is called Advanced Hex Chrome-free Surface Technologies for Corrosion Protection (TSB file no. 102580). However, the acronym COLM (Corrosion of Light Metals) has been adopted for simplification.

Participating Companies

- Ashton & Moore Ltd
- BAE Systems (Operations) Ltd
- Bombardier Aerospace (Short Brothers plc)
- GE Aviation Systems Ltd
- Indestructible Paints Ltd
- Loughborough University
- Monitor Coatings Ltd
- Poeton Industries Ltd
- Rolls-Royce plc (Lead partner)
- University of Manchester

For further information, please contact
Sam Owen on 01332 240248
I have carried out three such training sessions for clients’ premises, I always include a safety session on relevant hazards of the process and follow up with an inspection of their plant. In recent weeks, when carrying out training sessions at clients’ premises, I always include a safety session on relevant hazards of the process and follow up with an inspection of their plant. In recent weeks, I have carried out three such training sessions for powder coating application. Despite capture booths and filtration systems having been installed, each plant had an excessive build-up of powder on floors outside the booth, lying on pipework and roof girders or clinging to walls. Such build-up is proof that capture equipment is not efficient and that regular cleaning is also required. Note that fine dusts should only be vacuumed; spraying, blowing or sweeping of organic dusts - including powder coatings and paint overspray - will cause particles to become airborne and generate static, so increasing the risk of dust inhalation, fire or explosion.

During my latest inspection, I had just brought the attention of the Manager to the problem of large quantities of dust attached to the walls in and around the booth, when he advised me that he had to go, because an HSE Inspector had made an unannounced visit. During her inspection, she made the same comments as I had, only with far more effect. Some might consider the timing unfortunate but, as I have explained before, the HSE are intent on preventing chronic health problems. Such a visit will lead to at least a letter requiring corrective actions plus an invoice for a “Fee for Intervention”, at the HSE’s modest rate of £1500 per day. In some cases, Improvement or Prohibition Notices will add to the urgency and cost of keeping production going. To avoid this, ensure that chemicals are adequately controlled, as required by CoSHH. Workplace Exposure Limits (WELS) for hazardous substances can be found in the document EH40.

Downloadable free at

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The Presidents Column by Graham Armstrong

Like everyone involved with the Institute, I am finding it hard to come to terms with the fact that we have lost our long standing friend Ron Read. When I re-joined the Institute 10 years ago, and was persuaded to re-start the organic group, Ron gave me a great deal of help and advice in the “ways” of the Institute! I well remember working alongside him in organising the IMFair series of conferences, initially aimed at the aerospace industry and held at the RAF museum at Cosford. From 2007 when we tested the water with a day’s event through to 2011 and 2013 when we filled three days, Ron was always on hand to give advice, and not a little leadership to the organic committee organising these events. His ability to put together viable events with a range of interesting and appropriate speakers is almost legendary!

A personal friend of mine, long since retired from the plating industry, was telling me only recently how Ron had really helped him with the technicalities of the industry when he first started: a great tribute to our friend.

However, life and our industry has to continue, and I want to bring to your attention a government funded scheme that could well be of interest to many of our members. My company have been claiming R&D Tax Credits for several years, which I have to admit I’d totally forgotten about. The legislation has been in force since 2002, and the Government is actively encouraging businesses to claim.

I was recently reminded of this initiative where any company, large or small, can claim tax credits for what is loosely called R&D. This can include not only developing new products, but also bespoke customising, environmental improvements, compliance and governance, or even simple problem solving of customer needs.

If any of our members feel they could benefit from this, I’m happy to put them in contact with an advisor who can give a lot more detail.

This will be my last “President’s Column” in IMFormation, before I hand over the baton of the presidency to Barry Gay. It has been an absolute honour and pleasure to serve as your president for the last three years, which have simply flown by! It is gratifying to see that our Institute continues to thrive and move forward, but as we are entering challenging times during Barry’s time in office with “Brexit” and all that entails, I’m sure I can rely on all of us to give Barry our full support to continue to carry the Institute forward successfully.

Graham Armstrong
September 2016
INTERFINISH 2016

The 19th Interfinish World Congress and Exhibition were held in Beijing during the week 20-24 September 2016 at the new Congress centre based adjacent to the Olympic Park under the auspices of the International Union for Surface Finishing (IUSF). The hosts were the China Surface Engineering Association under the chairmanship of Mr. Ma Jing and a Chinese orchestra featured in the opening ceremony. An attendance of almost 500 persons was achieved with the presentation of 10 Plenary Lectures on the first day and 134 papers reporting recent developments in parallel sessions. The concurrent exhibition had a large number of stands with exhibitors both from Chinese companies and International suppliers. With the exception of the Plenary sessions and two workshop sessions the language was English and the largely power point projections were of an excellent standard.

The vast Congress Centre (formerly the Olympic Games Press Centre) was able to host up to six congresses simultaneously together with full catering facilities for each and Exhibition areas in the lower floor. An encouraging aspect was the number of young people attending as delegates and the number of students who were present as ‘volunteer helpers’ having the opportunity to absorb the atmosphere while acting as guides and photographers. The organization was superb, the conference volumes being excellent and the refreshment facilities more than adequate. The website Interfinish 2016 was detailed and it is hoped will remain in place for some time.

The Plenary Lectures were presented by international experts mainly on the first morning and were chosen to review a wide range of topics covering the science and technology of established and new materials but also other important aspects of the wider business interests including the present state of international standards, the requirements of energy industries and the developments of surface engineering in China.

Many of the most popular fields for presentation could be predicted (Corrosion and corrosion mechanisms, automotive and marine protection, electronics applications, environmental issues including regulation) but it was noticeable that there was less emphasis on processing and more on product properties and performance. One ‘hot’ topic was inevitably trivalent chromium and with regulation coming soon many claims were being made for its properties with respect to low cracking tendency with thicker coatings. Many solution compositions were quoted but it was not always clear whether new solution formulations were being used or merely variations on established formulations. Nanotechnology was much discussed and use of plasma frequently cited. Graphene naturally received some attention but the unexpected prominence of Biomaterials was clearly apparent. The practical workshops were held in Chinese and therefore attracted local delegates and probably operatives rather than researchers.

During the Congress two Banquets were held at which presentations were made to some overseas delegates, to important new paper authors and to committee members for services rendered. The IUSF Council met at some length to make some important decisions on the future management and organization in the context of a Historical survey presented to largely new younger delegates. It is hoped that the future will be assured as new member societies are drawn in and former members encouraged to rejoin. The next Interfinish will be held in Nagoya in September 2020 and it is hoped that a greater attendance from the UK will be possible.

David Gabe
Tin Whisker Mitigation Methodologies
SEMINAR – 24th November 2016
Holywell Park, Loughborough University

WEBINAR – 11th October 2016

Since the introduction of the RoHS legislation in 2006, the threat of tin whisker related short circuit failure from pure tin finished components has remained as a major concern within the high reliability electronics manufacturing industry. But how do we set about mitigating against such failure where the use of pure tin finished components is unavoidable?

This seminar is aimed at answering this question, providing a series of technical presentations that will capture current thinking regarding whisker mitigation. As a taster to the seminar, there will be a FREE smart-e-webinar on 11th October 2016 that will give an overview of the subjects to be presented.

Seminar Topics will include:
• A keynote presentation on the State of the Art concerning Tin Whiskers
• Evolution of Whisker Mitigation techniques from iNEMI in 2006 to present day IEC Standards
• Impact of Tin Plating methodologies on tin whisker formation
• Research into Mitigation using Conformal Coating by Loughborough University & National Physical Laboratory
• Whisker mitigation from an End Users Perspective
• Mitigation via component re-finishing

Who Should Attend
These events are ideally suited to any member of staff in electronics manufacturing or design who wish to improve their knowledge of the issues surrounding tin whiskers and current thinking concerning mitigation techniques. Managers and non-engineering support staff will also benefit from a fuller understanding of the issues involved.

For further details, follow the following links:
http://www.smartgroup.org/ai1ec_event/tin-whisker-mitigation-methodologies
-smart-e-webinar/?instance_id=705
http://www.smartgroup.org/ai1ec_event/tin-whisker-mitigation-methodologies/?instance_id=707
Ronald Reginald Read

Ron died suddenly on Saturday 27 August after a short illness aged 84. He was admitted to Good Hope Hospital at the beginning of August and about a week and a half later was diagnosed with advanced cancer of the lung. He was transferred to a nursing home on 15 August but died less than two weeks later.

The IMF will certainly miss Ron. Even after he retired from senior posts on reaching 80 he still produced IMFormation until a few months ago and attended some committee meetings. He was always ready to let any of us know if we were not doing our jobs correctly – after all, he had held almost every office in the IMF.

I believe that Ron’s lasting memorial is the continuing success of the Education Programmes. He was at the forefront of the introduction of all the modern educational offerings. He prepared a significant part of the teaching material as part of his role as Chairman of the Education Committee. He was also a member of the Examination Board the whole time that I was Chairman and he continued after I retired from that post.

Ron was a very competent Conference and Seminar organiser. He prided himself on ensuring that every detail was covered. My first real encounter with Ron was when he organised a Conference on Vacuum Coating and Allied Techniques at Penns Hall in Sutton Coldfield. It was a great success numerically but I think only four IMF members were present. At that time the IMF failed to exploit this entry into that branch of Surface Finishing. We first worked closely together when the Midland Branch of the IMF organised a series of Symposia and Exhibitions at Aston University in the mid 1980s. The first two concerned ‘Shielding’ and the response was so good that we had to transfer the events to the Great Hall. This was how the Midland Branch accumulated such a good Bank balance together with running Foundation and Technician level courses. Eventually, the
responsibility for courses was passed over to Exeter House. He was Events organiser for many years. This covered the Annual Conferences when they were very important meetings and some International events such as the one on Printed Circuit Technology held in Glasgow.

Ron was one of the main people responsible for transferring the Head Office from Goswell Road in London to Exeter House in 1981. This move had a significant impact on the future direction of the IMF.

Ron supported the Midland Branch of the Institute for many years. He had a period as Chairman but acted as secretary/treasurer for a long period until it became clear the Branch was no longer viable. He was very involved in Health and Safety and environmental issues and co-operated with the Metal Finishing Association on behalf of the Institute. He served the Institute in many practical ways and I am sure I have omitted some of his contributions. He has held the two most senior posts in the IMF, President and Hon Secretary General. He was Hon Secretary General from 1981 to 1984. This is probably the most important post in the IMF and under his guidance the Institute flourished. He was elected as President for 1994/1995. In 2008 he was awarded the Gold Medal which is only awarded on occasions when Council (now Management Board) considers that recognition is needed for outstanding service to the Surface Finishing Industry. It is the highest accolade for outstanding personal, scientific or technical service relevant to the objectives of the Institute. I certainly think this citation sums up Ron’s lifetime contribution to the IMF.

Ron spent most of his working life at Joseph Lucas Ltd involved with electroplating and other surface finishing processes. After taking early retirement he was able to spend a great deal of his time working voluntarily for the IMF. He spent his National Service in the RAF and a few years ago formed a local group of retired RAF members. Once more he used his organisational skills to arrange lunch meetings with speakers and visits for a group of about fifty people. This continues successfully under a new leader since January 2016. In earlier years he had been successful in competition Ballroom Dancing and an enthusiastic charity worker. He was very keen on animals, particularly horses and dogs.

On a personal level, I shall remember Ron as a loyal friend and near neighbour who was always willing to help with jobs such as watering plants and keeping an eye on our house when we were away.

- Keith Dennis
Over the past few months, the IMF have received a number of requests for practical training workshops to cover surface finishes, most specifically aimed at paint and powder application.

Such training falls outside our normal offering of distance learning courses to Foundation and Technician level, which deal more with detailed knowledge of the science behind surface engineering and finishing. This makes these courses more suited to laboratory staff and technicians rather than operatives.

To meet this new need, our organic finishing group committee, working closely with our education and training committee, have devised courses for the application of both wet finishes and powder coatings.

The courses will be run over consecutive days, subject to a minimum number of applicants. Anyone who wishes can attend both the powder and paint sessions.

The courses are designed so that they can be held either within training/applications laboratory, located at one of two sites in the West Midlands or, preferably, at clients’ own premises, where specific issues with the coating of their own components can be directly addressed.

The attendees will be provided with a fully documented training manual, with space allowed for attendees to make notes as the course progresses.

On successful completion of the course, attendees will be issued with a certificate identifying the aims of the course and confirming their attendance.

For further details, costings and the next planned course, please contact Helen or David on
Telephone: 0121 622 7387
helen@materialsfinishing.org
david@materialsfinishing.org
New Members

Affiliate

Aaron Hammond
E2V Tech

Agnieszka Krasuka
Poeton Ltd

Alan King
E2V Tech

Andrew Pridgeon
T.E. Connectivity

Andy Cockerill
Protech Finishing Ltd

Bartłomiej Salamaj
Poeton Ltd

Caroline Camilleri
Poeton Ltd

Chris Jenkins
Texturing Technology

Daniel Frost
E2V Tech

David Barton
SWMF

Ellis LLoyd
Poeton Ltd

Gavin Thomas
Texturing Technology

Gregory Pilsbury
GMF Ltd

Jacob Minett
Poeton Ltd

Affiliate (cont.)

Kerry Seaton
Protech Finishing Ltd

Lewys Howard
Poeton Ltd

Mark Sherriff
SWMF

Martin Dack
Doncasters Bramah Ltd

Nazia Kouser
Ashton & Moore Ltd

Nicholas Vale
Caldic UK

Parnam Jirh
DMS Chromium Plating Ltd

Slawomir Owca
SWMF

Thomas Ashton
Poeton Ltd

Tom Everson
Protech Finishing Ltd

Fellow FIMF

Mozzam Bashir
Advanced Colour Coatings

Information October 2016 • 0121 622 7387 • helen@materialsfinishing.org
**South West Metal Finishing**

*Principles of Electroplating*

Joshua Taylor  
Caity Weiner  
Alexandra Moraru

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**Next Enrolment date for Training Courses is 10th February 2017**

Contact  
David Meacham  
on  
0121 622 7387  
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