Job Title: New Process Development Engineer - KTP Associate

Theme: Reduction of cure time using RF heating in the manufacture of epoxy tooling boards.

Project: Knowledge Transfer Partnership (KTP): to optimise a key process, increase throughput and develop new products using a novel heating technology.

School/Department: Faculty of Engineering – Base Materials Ltd

Contract: This post will be offered on a fixed-term contract for a period of 21 months on a full time basis.

Location: Base Materials Ltd, Whetstone, Leicester and the University of Nottingham.

1. Job purpose:
This is an exciting opportunity for a Chemical or Process Engineer to join our diverse team in partnership with Base Materials. Your key project will be to deliver a novel curing process to reduce processing time and increase throughput of our primary product, epoxy composite tooling boards. As well as increasing production for application in the Formula 1, automotive and aerospace industries, this process will reduce process environmental impacts and enable a broader product range, allowing access to new markets.

2. Duties and responsibilities:
The key project you will be responsible for is to deliver a novel curing process to reduce processing time and increase throughput of Base Material’s primary product, epoxy composite tooling boards. Responsibilities/accountabilities will include:

Product Development:
- Write work plans to achieve short-term and medium-term product development through chemical product design (formulation of new products).
- Understand testing requirements, prepare quality samples, run corresponding experiments.
- Carry out analytical & mechanical testing (or other) or commission testing (when not available in-house) and interpret data adequately.
- Write technical report and relevant technical datasheets.
- Benchmark existing market-leading products.
- Lead chemical process development through support of pilot batches of new products.
- Set adequate process paperwork to provide guidance to shop floor operators.

Customer Manufacturing Processes:
- Maintain up to date knowledge of Base Materials product lines and corresponding competitors’ products.
- Support customer enquiries with fact-based scientific lab-work.
- Document queries and findings in customer report.

Standards:
- Ensure high standards of housekeeping are maintained throughout the formulation lab.
- Respect and implement Health and Safety risk assessment for all practical tasks, including COSHH assessments.
- Ensuring quality related checks are carried out as appropriate.
- Delivering high quality written reports as required.
- Lead quality improvement projects when and where required by the business.

3. Special Conditions:
Whilst the position will be based at Base Materials Ltd in Leicester, the Associate must be prepared to travel within the UK and spend some time at the University of Nottingham.

### Knowledge, Skills, Qualifications & Experience:

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<th>Essential</th>
<th>Desirable</th>
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<td><strong>Education</strong></td>
<td>• First degree or equivalent in chemical engineering, process engineering, mechanical engineering, materials science related discipline</td>
<td>• PhD, EngD or equivalent obtained or studying towards in chemical or process engineering or a related discipline</td>
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<td><strong>Experience</strong></td>
<td>• Previous industrial experience in an engineering environment. This may include a year spent on industrial placement</td>
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| **General Skills and Abilities** | • Excellent written and spoken communication skills in order to explain processes to a range of people and to give presentations to groups  
• A team player with good interpersonal skills, willing to be flexible and engage with shop floor activities.  
• A positive and professional attitude  
• Strong decision making and accountability  
• Strong-willed and independent, confident to challenge Directors / Senior Management  
• Agile approach to getting things done  
• ‘Can do’ attitude / Provide Solutions / Problem Solving  
• Persuasive and influential, but in a ‘consultative’ approach style to win confidence  
• Forward thinking, collaborative and seeking continuous improvement  
• Hands-on approach with a flexible attitude | | |
| **Technical Skills and Knowledge** | • Project Management – a proactive, clear and logical approach to planning, resources and reporting on progress  
• A strong understanding of core chemical engineering principles and process engineering application such as process design and safety | • Experience in field of composites, adhesives and coatings  
• Experience in FMCG or chemical manufacturing environment | |
| **Other**            | • Willingness to travel between the university of Nottingham and Base Materials  
• Commitment to observing Equality & Diversity policies at all times  
• Commitment to maintain confidentiality | • Willingness to undertake appropriate further training and to adopt new procedures as and when required |
Informal enquiries may be addressed to Rebecca Ferrari Email: Becca.ferrari@nottingham.ac.uk. Please note that applications sent directly to this email address will not be accepted. Knowledge Transfer Partnerships is a government funded technology transfer initiative that supports partnerships between business and universities, placing graduates on challenging, high profile projects. To be eligible for this KTP, candidates must have completed their Masters or PhD in the last few years. Further information is available at: http://www.ktponline.org.uk.

The University of Nottingham strongly endorses Athena SWAN principles, with commitment from all levels of the organisation in furthering women’s careers. It is our mission to ensure equal opportunity, best working practices and fair policies for all.