

# Adam Sirutis

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January 24, 2019

Dear Hiring Manager,

I am writing to apply for the Junior/New Grad Associate position at -30- Forensic Engineering. I believe my past experience with project management in the automotive industry, and my education and practical experience in failure analysis, make me an excellent candidate for this role.

With my experience in the **automotive manufacturing** industry, and my education in **Materials Engineering and Management**, I am well suited for this position. In the capacity of **Project Engineering** with ABC Group, I was a member of the program management team for the design and manufacturing of air induction systems for the 2019-2023 Dodge Ram HD. This position demanded prudent management, as well as diligent individual and team work in order to complete work tasks within tight deadlines. Most critical to my success was the honest and effective communication networks I had built across the company; with suppliers; and with the customer.

During my time with Stackpole, we were discovering cracks in the powder metal parts we were manufacturing. This crack had the potential to grow and cause failures in operation. I was tasked with determining root cause. I had prepared a fishbone diagram, and highlighted the most likely causes. I took pictures under optical microscope before sectioning, preparing the samples, and sending for SEM. SEM showed oxidation present in the crack. From this, we could determine that the crack must have been present prior to a process step that could have produced the oxidation. Ultimately, the crack was tracked down to a tool that was out of spec.

Thank you for your time and consideration. I look forward to hearing from you.

Sincerely,

Adam Sirutis

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## *Skills*

- Optical and Electron microscopy experience including: SEM, TEM, chemical analysis techniques (EDS, WDS), fractography, Image Analysis
- Materials characterization techniques including XRD, EBSD, hardness testing
- Project Management
- Valid full driver's license
- Proficient in Microsoft Office programs; Statistical software; CAD
- Fluent in English and French, oral and written

## *Work Experience*

### **ABC Group Inc. · Project Engineering · August 2017- Present**

- Program management of air induction systems for the 2019-2023 Dodge Ram HD
- Led product lab testing, using results to guide design changes and manufacturing process parameters
- Providing support to the customer regarding product performance and program progress
- Managed project timeline to ensure important program milestones were met on time
- Oversaw DFMEA and PFMEA documentation
- Led root cause analysis of materials related testing failures
- Implemented Continuous Improvement initiatives of manufacturing processes, leading to improved product performance and cost savings
- CAE and FEA to predict product performance and guide problem solving decisions
- Technical quoting for new business

### **Stackpole International · Jr. Engineering Specialist · May 2015- August 2016**

- Research, development, and manufacturing of powder metal solid oxide fuel cell interconnects
- Studied alternative ceramic materials to be used in manufacturing for increased quality and throughput; lower maintenance costs
- Designed new thermal profile at sintering step for increased product performance
- Performed metallurgical and chemical analysis, including most SEM tools and techniques
- Supervised and performed product tests and experiments
- Implemented new and unique testing equipment
- Statistical data analysis to identify root cause of issues, and monitor product quality
- Developed new quality assurance procedures, reducing scrap rates

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## **McMaster University · Research Group Member · September 2014 – April 2015**

- Member of Dr. Marek Niewczas research group working on discovering fundamental mechanical properties of an aluminum superalloy for application in automotive frames
- Performing tensile and compression tests at room temperature, in liquid nitrogen, and liquid helium environments
- Operating unique and world-class equipment

## **Institut National Polytechnique de Grenoble · Nuclear Materials Research Intern · May-August 2013**

- Carried out research on the diffusion of Ti in powder metal ODS steel for application in Generation IV nuclear reactors
- Performed electron microscopy for sample analysis (SEM & TEM)
- Microhardness testing to determine mechanical properties
- Image Analysis to determine grain size distribution, to relate to observed mechanical properties
- Data collection, organization and analysis, with a full report on the findings

## *Education*

- McMaster University · Hamilton, ON · **Materials Engineering & Management - Entrepreneurship Stream - Co-op - (B.Eng.Mgt) - 2017**

## *Interests*

- Music, Film, Art and Literature
- Piano, guitar, trumpet
- Tennis, Squash, Hockey

## *References*

Brendan Ayre, P.Eng. – Senior Advanced Engineering Product Manager –  
Stackpole International - bayre@stackpole.com – 289-339-2358