

## **JOB DESCRIPTION**

**TITLE:**                    **Brake Development Engineer (aka Friction Products Engineer)**

**CLASSIFICATION:** Exempt

**REPORTS TO:**            Program Manager

**LOCATION:**                Upstate New York

**DATED:**                  August 2007

### I. Position Summary

The Brake Development Engineer is responsible for developing and integrating the components of an automotive braking system, using ceramic matrix composite (CMC) materials. The position will assist in establishing manufacturing processes and procedures for CMC brake rotors, and for designing the optimal configuration of rotor, pads and peripheral systems to meet customer requirements. The position conducts product and process development in a laboratory setting, adhering to established R&D documentation standards. The position will also execute program deliverables in accordance with the requirements of funded research projects, including accumulation and summarization of scientific data, fabrication of composite parts, preparation of progress reports, and participation in periodic meetings with project leaders and customers.

### II. Primary Duties of Position

1. Designs experiments and fabricates ceramic matrix composite parts in support of funded and internal R&D projects in the transportation field.
2. Experiments with different material systems, brake pad formulations, and other peripheral systems to develop braking systems meeting customer requirements.
3. Provides direct support of research projects. Accumulates data, prepares progress reports and participates in project meetings with the Program Manager and customers.
4. Maintains documentation in accordance with Company policies and generally accepted laboratory procedures.
5. Assists the Program Managers and the Sales/Marketing team with product and/or applications commercialization efforts.
6. Provides training and support to, and may supervise the work of, assigned Technicians in the advanced materials laboratory.

### III. Additional Duties and Responsibilities

1. Performs role in accordance with Company policies and existing regulations, with attention to the health and safety of all employees.
2. Participates in formal and informal administrative and operational functions to support high quality and efficient operation of the Company.
3. Interacts with fellow employees in a respectful, collaborative and team oriented manner.
4. As this list of duties and responsibilities are not intended to be all-inclusive, other tasks and responsibilities may be assigned from time to time as business needs require.

### IV. Required Education, Skills and Experience

1. BS degree in engineering, material science or related field, advanced degree preferred.
2. Five years direct experience in development and testing of automotive braking systems.
3. Familiarity with standard ceramics characterization methods, including SEM, XRD, electron microprobe, flexure and tensile testing, etc.
4. Knowledge of basic laboratory operating and safety principles.
5. Proficiency in modern laboratory and office technology.
6. Strong written and interpersonal communication skills. Ability to convey technical information in understandable terms.
7. Strong problem solving skills; attention to detail; and accurate recordkeeping abilities.

### V. Other Requirements and Working Conditions

1. Flexibility in work schedule - occasional overtime and weekend work may be required.
2. Ability to travel as needed, primarily domestically.
3. Familiarity with chemical and laboratory environment, with occasional use of personal protective equipment.
4. Occasional physical demands, including loading and unloading furnaces, lifting up to 70 lbs, etc.

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5. Ability to deal positively with changing priorities in a fast paced environment, work independently, and manage multiple priorities.

**Qualified Candidates:**

**Email or Fax Your Cover Letter and Resume to:**

**Email Address: [ciiconsult@comcast.net](mailto:ciiconsult@comcast.net)**

**Fax No. 434-296-4590**

**Attn: Howard A. Lowenstein**

**Call 434-296-6633 if you experience any transmission problems.**