

Senior Ceramic Engineer – Job Description

Classification: Exempt

Reports to: VP of Technology

Date: 01/15/2022

Summary/Objective

The role of Ceramic Engineer is to **develop, oversee, optimize, and troubleshoot manufacturing processes** to produce ceramic composite materials. This position requires a person to perform work with minimum supervision, exercising judgment and initiative.

Duties/Responsibilities

Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

1. Design, develop and implement new and improved processes on Silicon Carbide Composite area.
2. Expected to work on all phases of development including material science research, process and product development and the implementation of this work into R&D demonstrations, scaleup and full-scale manufacturing
3. Apply composite and ceramic material engineering principles to enable manufacturing of high temperature composite and ceramic parts, including ceramic matrix composites, and fabrication methods and associated processes
4. Interface with suppliers regarding technical issues concerning raw materials, parts fabrication, new materials/processes, and/or review of manufacturing plans
5. Conduct training sessions on new material products, applications, or manufacturing methods for customers and their employees.
6. Material characterization and process development, including selection of materials and processes for parts and products
7. Participate in non-conformance disposition and corrective action processes
8. Author material and process specification
9. Execute and/or support commercial and manufacturing requests
10. Demonstrate open and collaborative approach in all areas of responsibility
11. Conducts tests to evaluate the efficiency of process.
12. Evaluates processes and equipment to ensure regulatory compliance.
13. Troubleshoot problems with processes and implement changes as required.
14. Analyze and troubleshoot manufacturing techniques, procedures, and processing conditions.
 - a. Evaluate processing conditions and resultant material properties and troubleshoot as necessary utilizing SPC techniques.
 - b. Own PFMEA for process and implement countermeasures for top failure modes
15. Schedule and coordinate projects to align with deadlines and budgets.
16. Prepare estimates of production cost and production progress report for management.
17. Establish safety procedures for those working with dangerous chemicals.

Competencies

1. Excellent verbal and written communication skills.
2. Excellent interpersonal and customer service skills.
3. Strong analytical and problem-solving skills.
4. Thorough understanding of equipment, product, industry, and/or services provided to clients.
5. Proficient with Microsoft Office Suite or related software as required to prepare reports and logs.

Work Environment

While performing the duties of this job, the employee will frequently be visiting manufacturing sites and areas and may be subject to typical manufacturing hazards (moving pieces of equipment, loud noises, chemicals, etc.). TSE is continuously faced with several projects considered to be high priority. Project work must continue while assuring that day-to-day operations continue, and technical problems are resolved. Visits to continuing education, conferences, and management seminars are expected.

Physical Demands

The employee is required to sit, walk, and stand for extended periods of time. Minimal physical exertion is required; however, employee must be able to lift and/or move objects up to 25 pounds and occasionally lift and/or move objects up to 50 pounds.

Position Type/Expected Hours of Work

This is a full-time position. Days and hours of work are Monday through Friday, 8:00 a.m. to 5 p.m., must remain flexible and open to possible schedule changes in order to meet business needs.

Travel

Occasional customer visits are expected, which may include air travel.

Education and Experience

- Master's or bachelor's degree in Materials Science and Engineering, Ceramic Engineering or other relevant engineering degree required.
- 5 to 10 years of technical experience in ceramic engineering with an emphasis on non-oxide ceramic materials
- Strong & effective communication skills, written and spoken.
- Strong leadership skills.
- High degree of proficiency in MS Excel, Word, PowerPoint, and Outlook.

Work Authorization/Security Clearance

To conform to U.S. Government space technology export regulations, including the International Traffic in Arms Regulations (ITAR) **you must be a U.S. citizen, lawful permanent resident of the U.S.**

Other Duties

Please note this job description is not designed to cover or contain a comprehensive listing of activities, duties or responsibilities that are required of the employee for this job. Duties, responsibilities and activities may change at any time with or without notice.

AAP/EEO Statement

Axiom is proud to be an Equal Employment Opportunity and Affirmative Action employer. We do not discriminate based upon race, religion, color, national origin, gender (including pregnancy, childbirth, or related medical conditions), sexual orientation, gender identity, gender expression, age, status as a protected veteran, status as an individual with a disability, or other applicable legally protected characteristics.