

# Principal Coating Engineer

II-VI Aerospace & Defense designs, manufactures, assembles and tests precision optical systems and components. Our products have been deployed on military platforms such as submarines, tanks, missiles, fighter jets and UAV's. II-VI Aerospace & Defense has grown over the years from a provider of specialty optical materials to a full service provider of optical components and optical systems.

Since its establishment in 1961, II-VI Aerospace & Defense has maintained a commitment to customer satisfaction and continuous improvement. Our commitment to customer satisfaction is achieved by continuous training of our staff with focus on quality, on-time delivery, and cost reduction. From the initial customer inquiry to final delivery, meeting the customer's requirements is our primary objective.

## **Basic Function:**

**Advanced Technology Development:** Exhibits an exceptional degree of ingenuity, creativity and resourcefulness to develop highly advanced technologies, scientific principles, theories and concepts. Extends EEO knowledge base and technical capabilities in the field of optical coating technology. Develops advanced coating technology resulting in new product/business opportunities for the company. Serves as technical consultant to management for long-term business planning related to technology development. Plans R&D projects, troubleshoots critical processes, and provides technical expertise and guidance to the coating engineering department. Represents EEO as the principle expert in the field of optical coating technology.

**Coating Engineering:** Leads technical teams and coordinates engineering activities for design, development, and implementation of new thin film coating products and manufacturing processes. Responsibilities include all aspects of thin film coating engineering including coating design, tooling design, process development, qualification, and process documentation, and support of coating operations including substrate cleaning, deposition, inspection, and characterization. Serves as the Process Owner for EEO thin film coating processes and equipment including implementation of process controls, "hands-on" monitoring of process parameters, data collection and analysis of process variables, and support of preventative maintenance programs and repairs for coating equipment. Supports program management and operations personnel with technical guidance on assigned projects. Ensures that design concepts comply with customer's specifications and are manufacturable. Supports acceptance testing, qualification testing, and troubleshooting efforts on assigned programs. Participates in configuration control (CCD), change control (ECO, NOR, RCN), and MRB activities to support assigned programs. Adheres to program financial goals and provides financial estimates and status updates to program management.

**Business Development:** Supports technical meetings with customers and writes technical proposals for development of new business. Assists the estimation group in evaluating

technical requirements, identifying exceptions, and preparing cost estimates for customer quotes.

**Personnel Development:** Provides guidance and training to coating engineers on assigned projects. Provides feedback through coaching and mentoring. Provides administrative and technical support to engineering management.

**Position Requirements:**

**Education:**

Minimum MS degree, Ph.D. preferred, in engineering or related discipline, preferably in physics, optics, electrical or mechanical engineering.

**Work Experience:**

20 years minimum thin film coating engineering experience, preferably at an aerospace company.

**Skills/Knowledge:**

1. Strong verbal and written technical communication skills.
2. Computer skills in word processing and spreadsheet software, including MS Word, Excel, Access, some CAD (Solidworks preferred), to support requirements for technical reports and analytical studies.
3. Strong hands-on experience in multiple conventional thin film deposition technologies (thermal and electron-beam evaporation, sputtering, chemical vapor deposition) including tooling design. Must possess a thorough understanding of the physics and practical mechanics of these processes.
4. Strong hands-on experience in pre-coat substrate cleaning methodologies.
5. Strong hands-on experience in characterization of coating performance.
6. Strong hands-on experience in coating design using a conventional software package.
7. Must be capable of reading blueprints.
8. Experience in process design, development and project planning is desired.
9. Ability to lead technical program presentations internally and for customers.
10. Strong analytical, fault isolation and problem solving skills. DOE and SOE experience

strongly desired.

11. Strong organizational skills and attention to details required.

12. Experience in preparing and maintaining drawings, procedures, process routers and Bills of Materials with full documentation and configuration control.

13. Broad coating engineering experience and process expertise.

14. Strong technical leadership skills and intuitive ability to develop advanced coating technology.