

PROTECTIVE COATING APPLICATION AND INSPECTION

"Ensuring Long-Term Corrosion Protection and Compliance through Effective Coating Practices"

Schedule

Date	Venue	Fees
09 - 13 Feb 2026	Istanbul, Turkey	USD 3495 per delegate

Introduction

Protective coatings are a frontline defense against corrosion and environmental degradation of industrial assets such as pipelines, tanks, bridges, and marine structures. However, improper surface preparation, application errors, and inadequate inspection can compromise coating performance and result in costly failures.

This intensive 5-day training equips professionals with in-depth knowledge of coating types, application techniques, surface preparation standards, and inspection procedures in line with international best practices (NACE, SSPC, ISO). Participants will gain hands-on experience in evaluating coating quality, identifying defects, and ensuring compliance with technical specifications.

Objectives

By the end of this course, participants will be able to:

- Understand the properties and functions of various protective coating systems
- Prepare surfaces in accordance with global standards for optimal adhesion
- Select appropriate coating systems based on environmental and service conditions
- Apply coatings using proper methods and quality controls
- Conduct thorough inspections and interpret results using industry-standard tools

Why Attend

- Reduce coating failures and rework through better application and inspection practices
- Gain a working knowledge of surface preparation, application, and testing techniques
- Improve asset longevity and maintenance planning through effective coating systems
- Ensure compliance with project specifications and international quality standards
- Acquire skills relevant for certification and quality assurance roles

Target Audience

This program is designed for:

- Coating applicators and supervisors
- QA/QC inspectors and site engineers
- Maintenance and reliability engineers
- Plant and asset integrity professionals
- Contractors, consultants, and owners overseeing coating operations

Individual Benefits

Key competencies that will be developed include:

- Ability to assess coating conditions and readiness
- Understanding of coating system selection criteria
- Skill in applying coatings using airless spray, brush, and roller
- Familiarity with inspection tools such as DFT gauges and holiday detectors
- Confidence in verifying coating conformance to technical and client specifications

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Fewer coating failures and reduced maintenance costs
- Improved inspection compliance and audit readiness
- Enhanced corrosion protection and asset performance
- Standardized procedures for coating application and testing
- Better communication between contractors, inspectors, and owners

Instructional Methodology

The course follows a blended learning approach combining theory with practice:

- Strategy Briefings - Standards, materials science, and technical specifications
- Case Studies - Failures due to improper application and how to avoid them
- Workshops - Surface condition assessments and defect analysis
- Peer Exchange - Group reviews of coating procedures and inspection reports
- Tools - Coating inspection instruments, technical datasheets, and application checklists

MAWA EVENTS

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Course Outline

DETAILED 5-DAY COURSE OUTLINE

Training Hours: 07:30 AM – 03:30 PM **Daily Format:** 3-4 Learning Modules | Coffee breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 – 02:00

Day 1: Fundamentals of Protective Coatings

- Module 1: Introduction to Coatings and Corrosion Protection (07:30 – 09:30) • The role of coatings in corrosion control • Basic coating chemistry and barrier mechanisms • Categories: organic, inorganic, metallic, and hybrid coatings
- Module 2: Coating Types and Selection (09:45 – 11:15) • Epoxies, polyurethanes, zinc-rich primers, and others • Coating system design for different environments • Manufacturer data sheets and performance curves
- Module 3: Case Study – Coating Failures (11:30 – 01:00) • Common causes of failure: poor adhesion, underfilm corrosion, blistering • Root cause analysis techniques • Lessons learned from industrial applications
- Module 4: Workshop – Coating Identification (02:00 – 03:30) • Sample review and matching coatings to service conditions

Day 2: Surface Preparation Standards and Techniques

- Module 1: Importance of Surface Preparation (07:30 – 09:30) • Surface cleanliness and profile requirements • Contaminants: rust, mill scale, oil, soluble salts
- Module 2: Surface Prep Methods and Equipment (09:45 – 11:15) • Abrasive blasting, power tools, water jetting • Surface profile measurement and cleanliness grades (ISO 8501, SSPC-VIS)
- Module 3: Inspection and Environmental Conditions (11:30 – 01:00) • Surface temperature, humidity, dew point • Measuring profile depth and anchor pattern
- Module 4: Workshop – Surface Prep Evaluation (02:00 – 03:30) • Hands-on review of surface prep samples and visual standards

Day 3: Coating Application Techniques

- Module 1: Methods of Coating Application (07:30 – 09:30) • Airless spray, brush, and roller • Mixing, thinning, pot life, and curing considerations
- Module 2: Application Best Practices (09:45 – 11:15) • Film thickness control, overlapping, holiday prevention • Avoiding sagging, pinholes, and uneven coverage
- Module 3: Safety and PPE During Application (11:30 – 01:00) • Ventilation, flammability, and protective gear • Handling solvents and chemicals
- Module 4: Workshop – Application Troubleshooting (02:00 – 03:30) • Scenario analysis of application errors and corrective actions

Day 4: Coating Inspection and Testing

- Module 1: Inspection Tools and Procedures (07:30 – 09:30) • Dry Film Thickness (DFT) gauges • Wet film gauges, holiday detectors, adhesion testers
- Module 2: Testing for Performance and Compliance (09:45 – 11:15) • Visual inspection, blotter tests, tape tests • Pass/fail criteria for common project specs
- Module 3: Documentation and Inspection Reports (11:30 – 01:00) • Recording data accurately • Preparing reports for client and third-party verification
- Module 4: Workshop – Mock Coating Inspection (02:00 – 03:30) • Simulated field inspection with tools and datasheets

Day 5: Coating Management, Repair, and Standards Compliance

- Module 1: Coating Repair and Touch-Up (07:30 – 09:30) • Repair techniques for damaged or aged coatings • Surface prep for repair zones • Recoating intervals and compatibility checks
- Module 2: Project QA/QC and Certification Readiness (09:45 – 11:15) • Coating inspection roles in quality plans • Coordination with contractors and certifying bodies • Prequalification and approval testing
- Module 3: Industry Standards and Compliance (11:30 – 01:00) • Overview of ISO 12944, NACE SP0188, SSPC PA-2 • Contract specifications and inspection hold points
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Module 4: Final Review and Certification (02:00 – 03:30) • Course summary and Q&A • Participant action plans • Certification ceremony

Certification

Participants will receive a Certificate of Completion in Protective Coating Application and Inspection, validating their expertise in applying, inspecting, and managing industrial protective coatings in accordance with international standards.

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