

€ TRAINING

Painting and Coating Technology





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Introduction:

Paints are available across the globe & are going to stay for decades to come. As you join the industry, without being familiar with new/existing technical terms, industry keywords, concepts, or core fundamentals, you will easily lose connection in the field. Don't get baffled by the enormity of the industry.

Course Objectives:

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

- Describe the types and uses of protective coatings, their application, and associated quality control on vessels
- Recognize salient safety issues associated with performing an inspection in the marine industry
- Identify and use instruments mainly used in marine coating inspection
- Recognize various IMO Resolutions related to protective coatings PSPC for ballast tanks, cargo tanks, and voids, antifouling, etc.

Targeted Audience:

- Project engineers
- Quality assurance managers
- Blasters
- Maintenance personnel
- Contractors
- Management or staff involved in maritime or shipbuilding with the required knowledge of coatings
- Paint applicators
- Technical sales representatives
- Employees of paint manufacturers in product development, sales, and marketing
- Those engaged in raw materials distribution to the coatings industry who wish to train new employees in the basics of coatings technology
- Paint contractors who need to understand the qualities of the products they are using
- Those who wish to find a career in the paint and coatings industry
- Retail sales staff seeking greater product knowledge to convey to the customer

Course Outlines:

Unit 1:

- Introduction to paints & coatings
- Core fundamentals
- Different types of paints & their properties
- How they are made / What raw materials to be used
- Chemistry for Organic Coatings, Oils and Varnishes/Alkyd Resins

Unit 2:

- Epoxy, Phenolics and Silicone Resins
- Acrylics, Urethanes and Cellulosics
- Solvents, Waterborne Resins and Emulsions, and Coatings Additives
- White, Extender, Organic, Black and Inorganic Pigments

Unit 3:

- Review of Resins for Industrial Coatings
- Corrosion and Surface Preparation and Primers
- Pigments, Dispersion, and Equipment
- Automotive Coatings OEM and Automotive Refinish Coatings
- Coil, General Industrial, and Powder Coatings

Unit 4:

- Environmental and Government Regulations
- Application Methods and Equipment Powder and Liquid
- Statistical Process and Quality
- Review of Trade Sales Paint Resins and Coatings Calculations
- Dispersion Process and Equipment and Pigments and Tinting Systems

Unit 5:

- Instrumental Colour Matching
- Special Formulating Know-how
- Manufacturing Methods and Exterior Durability
- Quality Control