

5-Day Training Course: ISO 21368:2022 – Adhesive Bonding

Fabrication and Risk Evaluation

Day 1: Introduction and Fundamentals

1. Overview of ISO 21368:2022 and Its Purpose
2. Principles of Adhesive Bonding
3. Types of Adhesives and Materials
4. Bonding Mechanisms and Joint Design Basics
5. Health, Safety, and Environmental Considerations
6. Roles and Responsibilities in Bonded Fabrication

Day 2: Surface Preparation and Process Control

1. Importance of Surface Preparation
2. Cleaning and Pretreatment Methods
3. Surface Inspection and Testing
4. Environmental Control (Temperature, Humidity, Cleanliness)
5. Process Parameters and Monitoring
6. Documentation of Preparation Procedures

Day 3: Bonding Operations and Quality Assurance

1. Adhesive Selection and Storage
2. Mixing, Application, and Handling
3. Assembly and Fixturing Techniques
4. Curing Methods and Control
5. In-Process Inspection and Testing
6. Non-Conformance and Corrective Actions

Day 4: Risk Evaluation and Reporting

1. Principles of Risk Assessment in Bonded Structures
2. Failure Modes and Effects Analysis (FMEA)
3. Traceability and Record-Keeping
4. Reporting Requirements per ISO 21368
5. Audits and Internal Reviews
6. Case Studies and Practical Exercises

Day 5: Integration, Competence, and Continuous Improvement

1. Integration with Quality Management Systems (ISO 9001)
2. Personnel Qualification and Training
3. Supplier and Material Control
4. Process Validation and Qualification
5. Continuous Improvement Methods