

# TRAINING ON BUILDING MATERIALS





# ABOUT US

**Welcome to Pertecnica, where knowledge meets expertise! As a leading employee training institute, we specialize in a diverse range of sectors, providing top-notch induction trainings, refresher courses, and elevating skills through our upgradation programs. We take pride in offering mandatory trainings that ensure compliance and safety trainings across various sectors/industries especially in the dynamic sector of Building Materials. At Pertecnica, we are your partners in growth, fostering a culture of continuous learning and development. Join us on a transformative journey.**



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# INDUCTION TRAININGS

## - Building Materials

### Introduction to Building Materials and Components:

- Comprehensive overview of various building materials used in construction.
- In-depth understanding of the properties, characteristics, and applications of common building materials.
- Identification of key components and their roles in construction projects.

### Quality Control and Assurance in Building Materials

#### Production:

- Training on quality control principles specific to building materials manufacturing.
- Understanding industry standards for ensuring the quality of materials.
- Application of quality assurance measures to maintain consistency and reliability in production.

### Safety Protocols in Building Materials Facilities:

- In-depth training on safety regulations and best practices within building materials production facilities.
- Identification and awareness of potential safety hazards associated with manufacturing processes.
- Practical exercises and simulations to reinforce safe practices in a manufacturing environment.



### **Introduction to Sustainable Building Materials:**

- Awareness of sustainable and eco-friendly building materials.
- Training on the environmental impact of various materials and the importance of sustainability.
- Application of sustainable practices in the production and use of building materials.

### **Material Testing and Quality Control Procedures:**

- In-depth training on testing procedures for building materials to ensure compliance with standards.
- Hands-on experience with testing equipment for various materials.
- Application of quality control measures to maintain high standards in material production.

### **Occupational Health and Safety in Building Materials Industry:**

- Comprehensive training on occupational health and safety principles specific to the building materials industry.
- Identification of potential health hazards associated with manufacturing processes.
- Practical exercises and demonstrations of proper safety practices for employees.

### **Introduction to Building Materials Distribution and Logistics:**

- Understanding the distribution and logistics processes in the building materials supply chain.
- Training on efficient inventory management and transportation of materials.
- Application of best practices for timely and cost-effective delivery of building materials.



## **Technology Integration in Building Materials**

### **Production:**

- **Exploration of technological advancements in building materials manufacturing.**
- **Training on the integration of automation and digital tools for enhanced production efficiency.**
- **Hands-on experience with modern technology used in the production of building materials.**

### **Customer Service and Communication in Building Materials Industry:**

- **Training on effective communication and customer service skills within the industry.**
- **Understanding the importance of building strong relationships with clients and partners.**
- **Practical scenarios to enhance communication skills for successful business interactions.**

### **Introduction to Industry Standards and Regulations:**

- **Training on industry-specific standards, regulations, and compliance requirements.**
- **Understanding legal obligations and responsibilities in building materials production.**
- **Application of standards to ensure lawful and compliant practices in the industry.**



# REFRESHER TRAININGS

## - Building Materials

### Advanced Quality Control and Assurance in Building Materials:

- Updates on the latest quality control principles and standards in building materials production.
- Advanced training on quality testing methodologies and equipment.
- Case studies and practical exercises focusing on addressing contemporary challenges in maintaining material quality.

### Innovations in Sustainable Building Materials:

- Exploration of the latest innovations in sustainable and environmentally friendly building materials.
- Updates on eco-friendly manufacturing practices and material alternatives.
- Practical applications and case studies showcasing the implementation of sustainable materials in the industry.

### Safety Protocols and Emergency Response Refresher:

- Updates on safety regulations and best practices within building materials production facilities.
- Advanced training on emergency response procedures and crisis management.
- Simulation exercises to reinforce quick and effective responses to accidents or emergencies.



### **Material Testing Advancements and Techniques:**

- Updates on cutting-edge material testing advancements and methodologies.
- Hands-on experience with the latest testing equipment for various building materials.
- Application of advanced testing techniques to ensure the quality and reliability of materials.

### **Digital Transformation in Building Materials Industry:**

- Exploration of digital tools and technologies transforming the building materials industry.
- Training on the integration of automation, data analytics, and Industry 4.0 principles.
- Hands-on experience with digital tools to optimize production processes and enhance efficiency.

### **Advanced Occupational Health and Safety Practices:**

- Updates on occupational health and safety regulations specific to the building materials industry.
- Advanced identification and mitigation of potential health hazards in manufacturing processes.
- Training on implementing proactive health and safety measures to protect employees.

### **Supply Chain Optimization and Logistics Refresher:**

- Updates on the latest trends and advancements in building materials distribution and logistics.
- Training on efficient inventory management and transportation strategies.
- Case studies and practical exercises focusing on optimizing supply chain processes for timely delivery.



## **Communication and Customer Relations in Building**

### **Materials Industry:**

- **Updates on effective communication strategies within the industry.**
- **Training on enhancing customer service skills and building strong client relationships.**
- **Practical scenarios and role-playing exercises to refine communication and customer interaction skills.**

## **Regulatory Compliance Review in Building Materials**

### **Production:**

- **Updates on industry-specific standards, regulations, and compliance requirements.**
- **Review of legal obligations and responsibilities in building materials production.**
- **Application of standards to ensure ongoing adherence to lawful and compliant practices.**

## **Advanced Technology Integration in Material Production:**

- **Updates on the latest technological advancements in building materials manufacturing.**
- **Training on leveraging advanced technology for enhanced production efficiency.**
- **Hands-on experience with cutting-edge tools and equipment used in the modern production process.**





# **SKILL UPGRADATION PROGRAMME**

## **- Building Materials**

### **Advanced Materials Engineering and Analysis:**

- In-depth training on advanced materials engineering principles and techniques.
- Application of sophisticated analytical tools for material characterization and performance evaluation.
- Hands-on projects to enhance skills in designing and developing materials with specific properties.

### **Process Optimization for Building Materials Manufacturing:**

- Training on process optimization methodologies to improve efficiency in manufacturing.
- Application of lean and Six Sigma principles for streamlining production processes.
- Implementation of data-driven approaches for continuous improvement in manufacturing operations.

### **Innovative Product Development in Building Materials:**

- Exploration of innovative product development strategies in the building materials industry.
- Training on market research, ideation, and prototyping for new material products.
- Hands-on projects to develop and present innovative material solutions.



## **Advanced Quality Management in Building Materials Production:**

- In-depth training on advanced quality management principles specific to building materials.
- Application of statistical quality control techniques to ensure consistent material quality.
- Practical exercises and case studies focusing on continuous improvement in quality management.

## **Materials Characterization Techniques and Instrumentation:**

- Training on advanced techniques for characterizing the properties of building materials.
- In-depth understanding of material testing instrumentation and methodologies.
- Practical applications of various characterization techniques in a laboratory setting.

## **Energy-Efficient Manufacturing Practices:**

- Exploration of energy-efficient manufacturing practices in the building materials industry.
- Training on sustainable production methods to reduce energy consumption.
- Application of eco-friendly practices for optimizing energy efficiency in material manufacturing.

## **In-Depth Cement and Concrete Technology:**

- Comprehensive training on the chemistry and technology of cement production.
- Advanced understanding of concrete mix design and optimization.
- Hands-on experience with innovative concrete technologies and applications.



### **Advanced Material Handling and Storage Practices:**

- Training on advanced material handling techniques in manufacturing facilities.
- Application of efficient storage practices to optimize inventory management.
- Hands-on experience with automated material handling systems and equipment.

### **Digital Twin Applications in Material Production:**

- Exploration of digital twin technology and its applications in the building materials industry.
- Training on creating and utilizing digital twins for production process optimization.
- Hands-on projects to implement and analyze the effectiveness of digital twin solutions.

### **Strategic Supply Chain Management for Building Materials:**

- Training on strategic supply chain management principles in the context of building materials.
- In-depth understanding of demand forecasting, procurement, and supplier relationship management.
- Application of supply chain optimization strategies for efficient material sourcing and distribution.



# MANDATORY TRAINING

## - Building Materials

### Occupational Health and Safety in Building Materials Manufacturing:

- Comprehensive training on occupational health and safety principles specific to manufacturing environments.
- Identification of potential health hazards associated with building materials production processes.
- Practical exercises and demonstrations of proper safety practices for employees in manufacturing facilities.

### Quality Control and Assurance Training:

- In-depth training on quality control principles specific to building materials production.
- Understanding industry standards for ensuring the quality of materials.
- Application of quality assurance measures to maintain consistency and reliability in material production.

### Building Materials Regulations and Compliance:

- Training on local and international regulations governing building materials manufacturing.
- Understanding legal obligations and responsibilities in compliance with industry standards.
- Application of regulatory compliance measures to ensure lawful and compliant material production.





### **Advanced Manufacturing Processes Certification:**

- In-depth training on advanced manufacturing processes used in building materials production.
- Understanding the principles behind innovative material manufacturing technologies.
- Hands-on experience with advanced machinery and processes for efficient material production.

### **Emergency Response and Crisis Management in Manufacturing Facilities:**

- Advanced training on emergency response procedures for manufacturing-related incidents.
- Simulation exercises for quick and effective responses to accidents or emergencies.
- Coordination with emergency services and effective communication during manufacturing emergencies.

### **Environmental Impact and Sustainability in Building Materials Production:**

- Awareness of environmental regulations and considerations in building materials production.
- Training on minimizing the environmental impact of manufacturing processes.
- Application of sustainable practices for eco-friendly material production.

### **Material Handling Safety and Best Practices:**

- Training on safe material handling practices within manufacturing facilities.
- Identification and mitigation of potential hazards associated with material handling equipment.
- Practical exercises to reinforce proper material handling techniques for employee safety.



## **Ethics and Professional Conduct in Building Materials Industry:**

- **Understanding ethical considerations and professional conduct in the building materials industry.**
- **Training on responsible decision-making and ethical behavior in material production.**
- **Case studies on ethical challenges in the industry and strategies for resolution.**

## **Fire Safety and Prevention in Manufacturing Facilities:**

- **Comprehensive training on fire safety protocols and prevention measures in manufacturing.**
- **Identification of potential fire hazards associated with building materials production.**
- **Practical exercises and simulations for effective fire prevention and response.**

## **Personal Protective Equipment (PPE) Certification:**

- **Training on the importance of PPE in preventing injuries and ensuring worker safety.**
- **Identification of appropriate PPE for different manufacturing tasks.**
- **Practical demonstrations on the correct usage and maintenance of PPE in manufacturing environments.**



# **SAFETY TRAINING**

## **- Building Materials**

### **Building Materials Manufacturing Safety Certification:**

- In-depth training on safety regulations and best practices specific to building materials manufacturing.
- Identification and awareness of potential safety hazards associated with production processes.
- Practical exercises and simulations to reinforce safe practices in manufacturing facilities.

### **Hazardous Material Handling Safety:**

- Comprehensive training on the safe handling and disposal of hazardous materials in building materials production.
- Identification and awareness of potential hazards associated with hazardous substances.
- Practical exercises to demonstrate proper procedures for handling and storing hazardous materials.

### **Machine Operation Safety in Material Production:**

- Training on the safe operation of machinery and equipment used in building materials manufacturing.
- Identification of potential hazards and safety measures associated with specific machinery.
- Hands-on training and simulations to ensure safe and efficient equipment operation.



## **Personal Protective Equipment (PPE) Awareness and Usage:**

- Training on the importance of PPE in preventing injuries and ensuring worker safety.
- Identification of appropriate PPE for different manufacturing tasks.
- Practical demonstrations on the correct usage and maintenance of PPE in manufacturing environments.

## **Fire Safety and Emergency Response in Manufacturing Facilities:**

- Comprehensive training on fire safety protocols and prevention measures in manufacturing.
- Identification of potential fire hazards associated with building materials production.
- Simulation exercises for effective fire prevention, evacuation, and response.

## **Fall Prevention and Working at Heights Certification:**

- In-depth understanding of fall prevention measures for workers involved in material production.
- Training on the proper use of fall protection equipment, such as harnesses and lanyards.
- Practical scenarios to demonstrate effective fall prevention and rescue techniques.

## **Chemical Spill Response and Management Training:**

- Training on response procedures for chemical spills in building materials manufacturing.
- Identification of potential chemical spill hazards and the importance of containment.
- Practical exercises to reinforce quick and effective responses to chemical spills.





## **Environmental Health and Safety in Material Production:**

- **Comprehensive training on environmental health and safety principles in the building materials industry.**
- **Understanding the environmental impact of manufacturing processes and the importance of sustainability.**
- **Application of practices to minimize environmental impact and ensure eco-friendly material production.**

## **Electricity Safety in Manufacturing Facilities:**

- **Training on electrical safety protocols and precautions in building materials production.**
- **Identification of potential electrical hazards and safe practices when working with electrical equipment.**
- **Practical exercises to reinforce safe electrical work habits and procedures.**

## **Confined Space Entry and Rescue Training:**

- **Comprehensive training on the hazards of confined spaces in building materials manufacturing.**
- **Proper procedures for entry into confined spaces and effective rescue techniques.**
- **Simulation exercises to ensure proficiency in confined space safety measures.**

