



Advanced Insulation and Refractory Materials and Work Execution

Code	City	hotel	Start	End	Hours	price
391	Milan (Italy)	Hotel Meeting	2026-04-06	2026-04-10		5450 €

Course Outline

Introduction

- Technical Perspectives
- Historical Perspectives

Foundations of Hot Processing

- Computational Quantities and Conversion Factors
- Hot Processing Temperatures and Their Measurement
- Process Chemistry and Environments

Foundations of Refractory Application

- Contemporary Hot Processing Equipment
- Continuous Types □ Vertical
- Continuous Types □ Horizontal
- Batch Types □ Circular
- Batch Types □ Rectangular
- Other Refractory Applications

Principles of Thermal Stability

- Melting Points of Substances
- Melting of Oxide Mixtures
- Microstructural Integrity



Principles of Corrosion Resistance: Oxidation-Reduction

- Importance of Corrosion
- Gibbs Free Energies
- Refractory Alteration by Oxidation-Reduction

Principles of Corrosion Resistance: Hot Liquids

- Liquid Penetration and Dissolution-Corrosion
- Factors Governing Penetration
- Factors Governing Dissolution

Principles of Corrosion Resistance: Hot Gases and Dusts

- Atmospheric Penetration and Condensation
- Dusts: Deposition and Abrasion
- Conclusion: Principles of Working Refractory Construction

The Working Refractory Product Line

- Classification of Working Refractories
- Maximum Service Temperatures
- Maximum Service Temperatures
- Corrosion Resistance
- Qualifications for Working Refractory Service

The Insulating Refractory Product Line

- Applications and Application Criteria
- Classification of Insulating Refractories
- Physical Form and Installation of Linings

Refractory Practice

- Refractory Qualifications in Review
- Refractory Practice from Qualifications
- Catalogue of Refractory Practice



Design Properties: Thermal and Electrical

- Reversible Thermal Expansion
- Permanent Deformation
- Specific Heat
- Thermal Conductivity
- Electrical Conductivity

Design Properties: Mechanical

- Elasticity and Plasticity
- Mechanical Characterization of Refractories
- Illustrative Mechanical Properties of Refractories

Refractory Manufacture

- Consolidated Flow Diagram for Refractories
- From Raw Materials to Forming
- Forming of Masonry and Special Shapes
- Agglomeration for Sintered Grain
- Drying and Firing of Refractories
- Quality Assurance in Manufacture

Refractory Installation and Maintenance

- Structural Engineering
- Masonry Construction
- Installation of Monolithics



The Scandinavian Academy for Training and Development adopts the latest scientific and professional methodologies in training and human resource development, aiming to enhance the efficiency of individuals and organizations. Training programs are delivered through a comprehensive approach that includes:

- Theoretical lectures supported by PowerPoint presentations and visual materials (videos and short films).
- Scientific evaluation of participants before and after the program to measure progress and knowledge acquisition.
- Brainstorming sessions and practical role-playing to simulate real-life scenarios.
- Case studies tailored to align with the training content and participants work nature.
- Assessment tests conducted at the end of the program to evaluate the achievement of training objectives.

Each participant receives the training material (both theoretical and practical) in printed form and saved on a CD or flash drive. Detailed reports, including attendance records, final results, and overall program evaluations, are also provided.

Training materials are prepared professionally by a team of experts and specialists in various fields. At the end of the program, participants are awarded a professional attendance certificate, signed and accredited by the Scandinavian Academy for Training and Development.

Program Timings:

- 9:00 AM to 2:00 PM in Arab cities.
- 10:00 AM to 3:00 PM in European and Asian cities.

The program includes:

- A daily buffet provided during the sessions to ensure participants comfort.



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application form

Participants full name:	<input type="text"/>
Participants employer:	<input type="text"/>
Country - City:	<input type="text"/>
Mobile number:	<input type="text"/>
Work phone number:	<input type="text"/>
E-mail:	<input type="text"/>
Method of fees payment:	<input type="text"/>

Invoice Recipient Data

Invoice Recipient name:	<input type="text"/>
Work phone Number:	<input type="text"/>
Mobile number:	<input type="text"/>
Work detailed address:	<input type="text"/>
E-mail:	<input type="text"/>



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Training and Development

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