



PROCESS AND CHEMICAL ENGINEERING

Industrial Insulation and Refractory Materials

5 day course

Classroom, online or in-house

Course overview

Insulation and refractory are among the least glamorous items on a plant and among the most expensive to get wrong, because failure appears as energy loss, personnel burns, or a furnace shell hot enough to distort. This course covers specifying and installing both. Delegates work through insulation materials and their temperature limits, thickness selection against heat loss and personnel protection, and the weatherproofing and vapour barriers that determine service life. Corrosion under insulation receives detailed treatment as the failure mechanism that destroys pipework invisibly. Refractory covers material selection, anchoring, dry out and the inspection that finds damage before a shell does.

What you will learn

- Select insulation materials against service temperature and environment
- Determine thickness for heat loss and for personnel protection
- Specify weatherproofing, cladding and vapour barriers
- Recognise, prevent and inspect for corrosion under insulation
- Select refractory materials and anchoring for a duty
- Plan and supervise a refractory dry out
- Inspect insulation and refractory and prioritise repair

Who should attend

- Maintenance and inspection engineers
- Project and construction engineers
- Energy managers
- Plant and process engineers
- Contractors installing insulation and refractory

Course outline

- 01 What insulation and refractory are protecting
- 02 Insulation materials and temperature limits
- 03 Thickness for heat loss and for personnel protection
- 04 Cladding, weatherproofing and vapour barriers
- 05 Corrosion under insulation
- 06 Refractory materials and selection
- 07 Anchoring, installation and dry out
- 08 Inspection, damage assessment and repair priority

Upcoming dates

Dates	Venue	Format	Fee per delegate
30 November to 4 December 2026	Online	Online	R8,500
1 to 5 March 2027	Dar es Salaam, Tanzania	Classroom	USD 1,325
8 to 12 March 2027	Durban, South Africa	Classroom	R19,950

Fees and how to register

This 5 day course is **R8,500** per delegate online, **R19,950** in the classroom in South Africa, Botswana, Namibia,



Lesotho and Eswatini, and **USD 1,325** in the classroom elsewhere in Africa. In-house training is quotation on request. Book 2 or more delegates on this course and save 10%.

To register or request an in-house proposal, visit www.afrisciencegroup.com, email info@afriScience.co.za, or WhatsApp us on **+27 63 479 1136**.

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