

REFRACTORIES TRAINING MODULES

The performance of refractories in the glass industry can affect production costs and glass quality, and the performance of furnaces can be directly related to factors such as furnace design and choice of materials.

Key challenges for refractories in the glass industry include enhancing furnace life and increasing productivity through achieving fewer glass defects. Another important aspect is energy efficiency and ensuring the least amount of heat is lost and melting is achieved in the most effective ways. This includes firing with oxygen rather than air, which changes the dynamics in a furnace considerably, thereby affecting the refractory performance.

Our new refractories training module for the glass industry is mapped to cover both glass furnaces and regenerators providing attendees with the necessary knowledge using our refractories expertise and know-how of production processes, refractory testing and failures. By understanding the refractories on your glass plant, you will be able to apply and implement the learning into your workplace.

Recommended for: designers, installers, process leaders, production and manufacturing operatives, maintenance teams, purchasing teams, material scientists or chemical and process engineers, R&D, quality and laboratory technicians, technical teams – anyone involved in the selection of refractory materials for the glass industry.

MODULE R6 REFRACTORIES TRAINING COURSE FOR THE GLASS INDUSTRY 2018

2 Day Course

Module scope: **Day 1 – Glass Furnaces**

Day 1 will look at the parts, conditions, requirements and refractory types required for the melting zone.

The day will cover:

- The principles behind the manufacturing process of AZS materials
- Inspection of AZS blocks suitable for use
- Corrosion of refractory linings and the mechanism by which it takes place
- Exudation and the effect on glass quality
- Stoning potential
- Bubble formation
- Hydrogen diffusivity specially for the tin bath blocks

Day 2 – Regenerators

Day 2 will look at the parts, conditions, requirements and refractory types required for regenerators.

The day will cover:

- Concept of the regenerator

- Temperature zones found in a regenerator
- Material choice in different areas
- Creep resistance
- Alkali attack
- Sulphur attack
- Phosphorite formation