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COURSE BROCHURE

Building Envelope and Facade Inspection Training Course

jupiterprime.uk

info@jupiterprime.uk

Registered in the United Kingdom and Saudi Arabia

Building Envelope and Facade Inspection Training Course

Building Envelope and Facade Inspection is a 1-week training course for building inspectors, facade consultants and construction QA/QC engineers, who leave with an Envelope Inspection and Testing Plan for a live project. Curtain walls, rainscreen cladding and flat roofs now account for many of the leaks, heat losses and fire concerns owners report after handover. Jupiter Prime Training offers this course on building envelope and facade inspection.

Why Building Envelope and Facade Inspection Matters Now

Three pressures shape envelope inspection today: complex facades that combine glazing, metal panels, stone and insulation from several suppliers, owners demanding energy performance that air leakage quickly erodes, and growing attention to combustible cladding and cavity barriers. A project that inspects interfaces, mock-ups and installed systems before finishes close them finds defects cheaply; one that waits for the first rainy season faces water ingress, mould and costly recladding. The course rests on building enclosure commissioning BECx practice, which follows the envelope from design review through mock-up testing to final acceptance, and on manufacturers' installation requirements.

Who Gains Most from Building Envelope and Facade Inspection

- Inspectors who check roofs, walls, windows and waterproofing against drawings and specifications
- Facade consultants who review shop drawings, mock-ups and site installation of cladding and glazing
- Quality engineers who run hold-point inspections and site tests for envelope packages
- Maintenance leads who assess leaks and deterioration on occupied buildings

A project quality team that sends its facade consultant, site inspector and waterproofing supervisor together gains most, because envelope defects usually sit at the joints between their packages.

Building Envelope and Facade Inspection Capabilities

Participants learn to follow water, air and heat through every layer of the envelope and to catch weak interfaces before they are hidden.

- Assess shop drawings and interface details for continuity of water, air and thermal barriers — informing design approval
- Plan inspection hold points for roofing, waterproofing, cladding and glazing — guiding site quality teams
- Apply water spray, air leakage and adhesion tests on mock-ups and installed work — supporting acceptance decisions
- Use infrared thermography to locate missing insulation and air paths — serving energy and maintenance teams
- Build defect records with photographs, causes and remediation steps — equipping contractors and owners

Key Building Envelope and Facade Inspection Terms

- Building Envelope — the roofs, walls, windows and below-grade elements that separate conditioned interior space from outside weather.
- Rainscreen Cladding — an outer panel layer with a drained, ventilated cavity behind it that stops most rain from reaching the wall.
- Air Barrier — the continuous layer of materials and joints that limits uncontrolled air movement through the envelope.
- Mock-Up Test — a full-scale sample of a facade or roof built and tested before production to prove details work.
- Infrared Thermography — imaging of surface temperatures that reveals heat loss, moisture and gaps in insulation.
- Cavity Barrier — a fire-resistant element closing a facade cavity to limit fire and smoke spread between compartments.

Building Envelope and Facade Inspection Day by Day

Day 1: Envelope Systems and Failure Patterns

- Roof, Wall and Glazing Assemblies — Identifying Layers and Interfaces
- Water, Air and Heat Control Principles — Tracing Barrier Continuity
- Hospital and Office Tower Case Studies — Learning From Envelope Failures
- Building Enclosure Commissioning — Framing Inspection From Design to Handover
- Envelope Inspection Scope — Defining Elements and Responsibilities

Day 2: Design Review and Mock-Ups

- Shop Drawing Review — Checking Joints, Flashings and Penetrations
- Material Submittals — Verifying Membranes, Sealants and Insulation
- Visual Mock-Ups — Agreeing Appearance and Tolerances
- Performance Mock-Up Testing — Proving Water and Air Resistance
- Fire Performance of Cladding — Confirming Cavity Barriers and Insulation Choices

Day 3: Roofing and Waterproofing Inspection

- Flat Roof Membranes — Inspecting Laps, Upstands and Drainage
- Below-Grade Waterproofing — Checking Tanking and Protection Boards
- Wet Area and Podium Waterproofing — Testing by Flood and Ponding
- Sealant Joints — Judging Width, Depth and Adhesion
- Roofing and Waterproofing Checklists — Recording Hold-Point Results

Day 4: Facade, Cladding and Glazing Inspection

- Curtain Wall Installation — Checking Anchors, Alignment and Gaskets
- Rainscreen and Metal Panel Cladding — Inspecting Brackets and Cavities
- Window Installation — Verifying Sills, Flashings and Perimeter Seals
- Field Water Spray Testing — Finding Leak Paths in Installed Work
- Thermography and Air Leakage Testing — Locating Hidden Defects

Day 5: Practising the Envelope Inspection and Testing Plan

- Defect Diagnosis Exercise — Applying Test Results to a Leaking Facade
- Hold-Point Planning Drill — Sequencing Inspections With Construction
- Photo Record Review — Writing Clear Defect Descriptions
- Peer Review of Remediation Proposals — Testing Root-Cause Logic
- Envelope Inspection and Testing Plan — Completing Scope, Tests and Acceptance Criteria

Applying Building Envelope and Facade Inspection After the Course

- Inspect one facade or roof interface on a live project and record barrier continuity with photographs.
- Introduce a field water spray test at the first installed window bay and log the results.

Building Envelope and Facade Inspection Questions FAQ

What is building envelope and facade inspection, and why does it matter now?

It is the planned checking and testing of roofs, walls, windows, cladding and waterproofing. It matters now because complex facades and energy targets make leaks, air paths and cladding defects costly once buildings are occupied.

Which roles gain most from building envelope and facade inspection training?

Building inspectors, facade consultants and construction quality engineers gain most. They approve details, run hold points and accept installed work, so barrier continuity, mock-ups and site tests shape their daily decisions.

How does building envelope and facade inspection differ from a general construction quality course?

It focuses on the weather-tight skin rather than all trades. A general quality course covers inspection systems broadly, while this subject covers membranes, cladding, glazing, sealants, water testing and thermography.

What do you bring back from building envelope and facade inspection training?

You bring back an Envelope Inspection and Testing Plan for a project you support. It lists elements, hold points, mock-up and field tests, acceptance criteria and defect recording rules.

Building Envelope and Facade Inspection: The Way Forward

The Envelope Inspection and Testing Plan first informs which interfaces must be inspected before they are covered. Facade consultants, inspectors and contractors use it to agree mock-up tests and site hold points. After the first rainy season or air leakage test it is worth revisiting the test frequency, since early results show where the facade is most vulnerable.