

Resources for Architectural Envelope Systems & Interactive Visualizations

ARCH 634 – Systems Integration I

Resources with 3D Images of Architectural Envelope Systems

- [**ArchDaily**](#) – Collection of articles and images related to building envelopes. Covers innovative facades, transparency in architecture, and envelope systems.
- [**Interactive Design & Visualization Lab**](#) – Syracuse University's design environment.
- [**UMass Amherst Research**](#) – Infrared imaging applied to 3D models.
[**Interactive UMass Visualization**](#) – Paper on infrared thermography and SketchUp.
- [**Guide to Better Building Envelopes**](#) – Comprehensive information on thermal bridging, glazing, and standards.

Whole Building Design Guide (WBDG) Links

- [**WBDG Home**](#) – Comprehensive building performance guidance.
- [**Seismic Safety of Building Envelopes**](#) – Covers cladding, glazing, and roofing.
- [**Flood Resistance of Building Envelopes**](#) – Discusses flood-resistant strategies.
- [**Blast Safety of Building Envelopes**](#) – Material reinforcement techniques.
- [**Windows and Glazing**](#) – Energy-efficient fenestration and heat loss prevention.
- [**Curtain Wall and Glazed Assemblies**](#) – Performance requirements.

EIFS & Rain Screen Systems

- [**Sto Corp – EIFS & Rainscreen Systems**](#) – Continuous insulation solutions.
- [**EIFS Sto Corp Industry Guide**](#) – Covers synthetic stucco applications.
- [**AWCI EIFS Details**](#) – Construction details for EIFS systems.

| Feature | EIFS | Rain Screen Systems |
|--------------------------------|--|---|
| Primary Function | Insulation & aesthetic cladding | Moisture management through air gaps |
| Moisture Control | Drainage EIFS prevents trapped water | Ventilated cavity allows evaporation |
| Durability | Vulnerable to impact without reinforcement | More durable with proper material selection |
| Installation Complexity | Precise detailing required | Requires well-designed air gaps |
| Cost | Lower upfront cost | Higher initial investment, better long-term performance |