

SECTION 09 77 00 – AIR PURIFYING, FIRE RETARDANT FAUX GREENERY PANELS

PART 1 – GENERAL

1.1 SUMMARY

- Section Includes:

- Modular faux greenery panels for interior and exterior applications with integrated air purification and fire-retardant properties.

1.2 RELATED SECTIONS

- 09 72 00 – Wall Coverings

- 09 81 00 – Acoustic Finishes

- 09 54 00 – Specialty Ceilings

1.3 REFERENCES

- ASTM E84 – Surface Burning Characteristics of Building Materials

- NFPA 701 – Standard Methods of Fire Tests for Flame Propagation of Textiles and Films

- NFPA 286 – Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish

- ASTM G154 – UV Exposure (Fluorescent UV Lamp Apparatus)

- AATCC 16.3 – Colorfastness to Light

- ASTM G21-15 – Resistance to Mold Growth

- IMO FTP Code Part 7 – Fire Test Procedures for Upholstered Furniture Components

1.4 SUBMITTALS

- Administrative Submittals: In accordance with Division 01 requirements.

- Product Data:

- Technical data sheets for each product.

- Certifications of compliance with specified standards.

- Storage, handling, and installation instructions.

- Samples:

- One full-size panel for verification of appearance and construction.

- Shop Drawings:

- Layout drawings indicating panel arrangement, attachment details, and integration with adjacent construction.

- Sustainability Documentation:
- Provide applicable environmental compliance data.
- Closeout Submittals:
- Maintenance instructions and warranty documentation.

1.5 QUALITY ASSURANCE

- Manufacturer Qualifications: Manufacturer shall have a minimum of 6 years experience producing architectural-grade faux greenery systems.
- Installer Qualifications: Installer shall have minimum 5 years experience with similar installations.
- Provide all panels and accessories from a single source for uniformity.

1.6 PRE-INSTALLATION CONFERENCE

- Conduct meeting two weeks prior to installation with Architect, Contractor, and related trades to review schedule, coordination, and installation requirements.

1.7 DELIVERY, STORAGE, AND HANDLING

- Inspect delivered materials for damage and compliance.
- Store in dry, protected conditions per manufacturer's recommendations.
- Do not install damaged or defective materials.

1.8 PROJECT CONDITIONS

- Maintain environmental conditions within manufacturer's specified limits during installation.
- Protect installed panels from dust and damage until project completion.

1.9 WARRANTY

- Provide manufacturer's standard warranty for minimum five years covering defects in materials and workmanship.

PART 2 – PRODUCTS

2.1 MANUFACTURERS

- Basis of Design: [Insert "Approved Manufacturer" or "As scheduled" without branding].
- Substitutions: Not permitted unless approved in writing per Division 01.

2.2 MATERIALS

- Panel Construction:
- UV-resistant, flame-retardant polyethylene foliage.

- Stainless steel mesh grid, minimum 8-gauge, 2-inch square pattern.
- Stainless steel ties for secure attachment.

2.3 PERFORMANCE REQUIREMENTS

- Fire Performance: ASTM E84, NFPA 701, NFPA 286, IMO FTP Code Part 7.
- UV Resistance: ASTM G154, AATCC 16.3.
- Mold Resistance: ASTM G21-15.
- Air Purification:
 - Panels treated with active hydroxyl technology to improve indoor air quality.
 - Demonstrated reduction of VOCs (volatile organic compounds) such as formaldehyde, toluene, acetone, and carbon monoxide.
 - Continuous operation under ambient conditions; non-toxic and environmentally safe.
 - Hydroxyl layer bonds covalently to foliage surfaces for long-term effectiveness.

2.4 PLANT VARIETIES

- Provide architect-selected mix from standard range of foliage types to achieve specified aesthetic.

2.5 ACCESSORIES

- Mounting hardware, brackets, and fasteners compatible with substrate and panel system.

2.6 FABRICATION

- Panels shall be square modules approximately 800 mm (31.5 in.) and capable of field cutting.
- Cut edges shall be finished to maintain appearance continuity.

PART 3 – EXECUTION

3.1 EXAMINATION

- Verify substrate conditions suitable for installation. Do not proceed until deficiencies are corrected.

3.2 PREPARATION

- Clean and prepare surfaces per manufacturer's instructions.

3.3 INSTALLATION

- Install panels in accordance with approved shop drawings and manufacturer's guidelines.
- Secure panels at minimum four attachment points per module.
- Adjust foliage to achieve uniform coverage and natural appearance.

3.4 FIELD QUALITY CONTROL

- Inspect completed installation for alignment, attachment integrity, and visual consistency.

3.5 CLEANING AND PROTECTION

- Remove installation debris and protect panels from damage until project completion.

3.6 CLOSEOUT

- Provide maintenance instructions and warranty documents.
- Conduct final inspection with Owner and Architect.