Pre Specification Note to Architects and Specifiers
Decoplast DDARS® Water-Drainage EIFS – Design Considerations and Guidelines and Short-Form Specification

Dear Design Professional,

Decoplast is pleased to provide the enclosed technical resources for the **Decoplast DDARS® Water-Drainage Exterior Insulation and Finish System (EIFS)**. These materials are intended to support informed design decisions, clear detailing, and efficient specification of a modern, code-compliant drained EIFS wall assembly.

To better align with current architectural practice and CSI/MasterSpec conventions, the information is provided in **two coordinated documents**, each serving a distinct purpose:

1. Decoplast DDARS – Design Considerations & Application Guidelines

This document is **informational and non-contractual**. It presents general design guidance related to water management, air barrier continuity, vapor diffusion, thermal performance, impact resistance, color selection, and architectural detailing. The guidance is intended to assist during early design, enclosure coordination, and detailing phases and reflects current EIFS industry best practices and code-referenced performance principles.

2. Section 07 24 19 – Water-Drainage Exterior Insulation and Finish Systems (EIFS) Specification

This document is a **short-form CSI-formatted specification** for use in the Contract Documents. It is organized in accordance with **CSI SectionFormat™ and MasterFormat®,** and defines scope, performance requirements, materials, and execution for the Decoplast DDARS Vertical Adhesive EPS Continuous Insulation System.

Separating design guidance from the contract specification is intended to:

- Improve clarity regarding **design intent versus contractual requirements**
- Simplify specification coordination and editing
- Reduce the potential for advisory language to be misinterpreted as enforceable requirements
- Support consistent, repeatable EIFS detailing across projects

Both documents are written to coordinate with applicable building codes, referenced ASTM and NFPA standards, and current enclosure design practices. Final system selection, detailing, and specification should be coordinated with project-specific conditions, climate considerations, and applicable codes.

We appreciate the opportunity to support your work and welcome collaboration during design or specification development. Please contact Decoplast technical services with any questions or for project-specific assistance.

Sincerely,

Decoplast Technical Services
Greenmaker Industries
West Hartford, Connecticut / Phone: 860-761-2830 / Website: www.decoplast.com

Decoplast DDARS®– Design Considerations & Guidelines
Water-Drainage Exterior Insulation and Finish System (EIFS)

Document Intent

This document provides general design guidance and application considerations for the **Decoplast DDARS Water-Drainage Exterior Insulation and Finish System (EIFS)**. It is intended to assist architects, engineers, and other design professionals with system selection, detailing, and coordination.

This document is **informational only** and is **not intended to form part of the Contract Documents**.

1. System Overview

Decoplast DDARS is a water-drainage exterior insulation and finish system (EIFS) incorporating a fluid-applied air and water-resistive barrier, adhesively attached expanded polystyrene (EPS) continuous insulation, reinforced base coat, and decorative finish. The system is intended for **vertical, above-grade, non-load-bearing exterior wall applications**.

The system includes integrated drainage capability and, when properly coordinated with flashing and other water-management components, is designed to drain incidental moisture, as demonstrated by testing in accordance with **ASTM E2273**.

Decoplast Air Water Barrier (AWB) is intended to function as a component of a properly designed and constructed exterior wall assembly. It is not intended to compensate for deficient design, improper detailing, or faulty workmanship, nor to correct defects in adjacent construction, including fenestration assemblies that permit water intrusion into the wall assembly.

2. Water Management

Effective water management requires proper coordination of the EIFS with flashing and related drainage components. Flashing should be provided to direct water to the exterior where it is likely to penetrate the wall assembly, including locations above window and door heads, beneath window and door sills, at roof-to-wall intersections, deck connections, abutments of lower walls with higher walls, above projecting features, at floor lines, and at the base of the wall.

The system should not be used on surfaces subject to continuous or intermittent water immersion or hydrostatic pressure. Prevent accumulation of water behind the system through appropriate design, detailing, construction sequencing, and temporary protection during construction.

3. Air Barrier Continuity

Continuous air barrier design is essential to limit uncontrolled air movement and reduce condensation potential within the wall assembly. Air barrier components should be coordinated at foundations, roofs, windows, doors, penetrations, and transitions using compatible materials and detailing.

Construction sequencing should be considered when designing an airtight enclosure, including the effects of airtightness on mechanical ventilation strategies and overall building performance.

4. Vapor Diffusion and Hygrothermal Performance

Evaluate wall assembly performance using dew-point analysis and/or hygrothermal modeling appropriate to project climate conditions. Adjust insulation thickness, material selection, and wall assembly configuration as necessary to reduce the risk of moisture accumulation due to vapor diffusion.

Avoid the use of interior vapor retarders in hot, humid climates unless supported by project-specific hygrothermal analysis.

5. Terminations, Penetrations, and Sealants

Sealant joints should be provided at EIFS terminations and penetrations, including windows, doors, scuppers, and mechanical, electrical, and plumbing penetrations. Joint dimensions and materials should accommodate anticipated movement and be compatible with EIFS materials.

Use **low-modulus, high-movement elastomeric sealants** specifically **silicones** and **STPE (silyl-terminated polyether)** that are **tested to ASTM C1382** and approved by the EIFS manufacturer. These are the only sealants consistently proven compatible with EIFS lamina and movement behavior.

Maintain continuity of the air barrier across joints and detail transitions to promote drainage to the exterior or otherwise manage incidental water intrusion.

6. Grade Conditions

Provide a minimum clearance above grade in accordance with applicable code requirements. Do not specify the system for below-grade applications.

EIFS is not approved for below-grade use

EIFS is a **non-ground-contact cladding** and is required to **terminate above grade** to prevent:

- Capillary water wicking
- Soil moisture intrusion
- Freeze–thaw damage
- Insect entry
- Impact damage

Manufacturers vary slightly, but all require **positive separation** from soil.

Typical requirements:

- **6–8 inches above finished grade**
- **2 inches minimum above paved surfaces**
- **No contact with mulch, landscaping, or snow accumulation zones**

7. Impact Resistance and Durability

Impact resistance of the Decoplast DDARS system varies based on reinforcing mesh selection. Increased impact resistance reinforcement may be appropriate at ground-level areas and locations subject to higher abuse. Reinforcement options have been tested in accordance with **ASTM E2458**, and the system may be suitable for hurricane impact resistance where applicable.

Impact resistance of the EIFS cladding varies based on selection of reinforcing mesh within the reinforced base coat.

Areas subject to increased abuse, pedestrian traffic, or maintenance activity may require enhanced impact resistance.

Coordinate locations requiring standard, high, or ultra-high impact resistance with the Drawings.

Standard Impact	25–49 in-lb.	4.5 oz	Upper stories, low-exposure areas
Medium Impact	50–89 in-lb.	6–10 oz	General wall areas, moderate traffic
High Impact	90–150 in-lb.	10–15 oz	Ground level, pedestrian zones
Ultra-High Impact	>150 in-lb.	15–20 oz	Schools, hospitals, loading docks, high-abuse areas

8. Architectural Features

Design EIFS trim, sills, ledges, build-outs, reveals, and other architectural features to promote effective water shedding and long-term durability. Avoid flat or near-horizontal surfaces where practical, particularly in areas exposed to frequent wetting, freeze-thaw cycling, or snow accumulation.

Evaluate slope, projection depth, and profile geometry based on exposure conditions, climate, and architectural intent. Maintain sufficient insulation thickness at architectural profiles and reveal returns to support lamina durability and resist cracking or impact damage. Avoid thin or sharply tapered profiles where performance may be compromised.

Where architectural features are highly exposed or project significantly from the wall plane, additional detailing or protection may be appropriate. Consider accessibility and future maintenance when incorporating extensive or complex EIFS projections.

9. Color and Thermal Performance

Expanded polystyrene (EPS) insulation has defined service temperature limitations. Surface temperatures of EIFS assemblies may be influenced by solar exposure, orientation, climate conditions, and finish color.

Dark-colored finishes, generally those with **Light Reflectance Values (LRV) below approximately 20 percent**, may contribute to elevated surface temperatures depending on exposure conditions and should be reviewed accordingly.

EPS insulation is flammable and must be kept away from flame, ignition sources, high heat, and sustained temperatures in excess of **165°F (74.8°C)**.

10. Codes, Standards, and Sustainability

Decoplast DDARS has been evaluated for compliance with applicable building codes and industry standards, including IBC, ASTM, ICC-ES acceptance criteria, and NFPA fire-performance requirements. Use of continuous exterior insulation and air barrier systems may contribute to improved thermal performance, reduced energy consumption, and sustainability program objectives such as LEED.

11. Finishes

EIFS finishes are categorized into finish tiers for bidding and pricing purposes. The finish tier designation establishes the basis of pricing for the work. Coordinate finish tiers with the Drawings and Finish Schedules.

Additional Information

Refer to current Decoplast product data sheets, published details, ICC Evaluation Reports, and technical resources available at **www.decoplast.com**.

DECOPLAST DDARS® VERTICAL ADHESIVE CI EPS CONTINUOUS INSULATION SYSTEM SPECIFICATION

SECTION 07 24 19 WATER-DRAINAGE EXTERIOR INSULATION AND FINISH SYSTEMS

PART 1 – GENERAL

1.01 SUMMARY

A. Provide a complete water-drainage exterior insulation and finish system (EIFS) consisting of a fluid-applied air and water-resistive barrier, continuous exterior insulation adhesively attached to form a drainage cavity, reinforced base coat, and decorative finish.
B. System: Decoplast DDARS Vertical Adhesive EPS Continuous Insulation System.
C. Non-load-bearing exterior wall cladding for vertical, above-grade applications.

1.02 RELATED SECTIONS

06 16 00 – Sheathing
07 27 00 – Air Barriers
07 62 00 – Sheet Metal Flashing and Trim
07 90 00 – Joint Protection
08 40 00 / 08 50 00 – Entrances and Windows

1.03 REFERENCES

ASTM C578 – Expanded Polystyrene (EPS) Thermal Insulation
ASTM E84 – Surface Burning Characteristics
ASTM E2178 – Air Permeance of Materials
ASTM E2273 – EIFS Drainage Efficiency
ASTM E2357 – Air Barrier Assemblies
ASTM E2568 – Class PB EIFS
NFPA 268 – Radiant Heat Exposure
NFPA 285 – Multi-Story Fire Propagation
ICC-ES AC212 – Water-Resistive Barriers
ICC-ES AC235 – EIFS Drainage Assemblies

1.04 DESIGN REQUIREMENTS

A. Design EIFS wall assemblies in accordance with the International Building Code and applicable local amendments.
B. Do not use EIFS as a structural component or as a substrate for mechanically attached loads.
C. Maximum allowable cladding deflection: L/240.

D. EIFS finishes are categorized into finish tiers for bidding and pricing purposes. The finish tier designation establishes the basis of pricing for the work. Coordinate finish tiers with the Drawings and Finish Schedules.

1.05 PERFORMANCE REQUIREMENTS

A. Air and Water-Resistive Barrier

1. Product: Decoplast Air Water Barrier (AWB)
2. Air leakage ≤ 0.004 cfm/ft^2 @ 1.57 psf per ASTM E2178
3. Assembly air leakage ≤ 0.04 cfm/ft^2 per ASTM E2357
4. No water penetration per ASTM E331
5. Comply with ICC-ES AC212

B. EIFS Cladding

1. System classification: Class PB EIFS per ASTM E2568
2. Drainage efficiency ≥ 95 percent per ASTM E2273
3. Flame spread ≤ 25; smoke developed ≤ 450 per ASTM E84
4. Comply with NFPA 285 and NFPA 268 where required
5. Maintain fire-resistance ratings of tested assemblies per ASTM E119

1.06 SUBMITTALS

A. Product data for all system components.
B. Installation instructions and published details.
C. ICC Evaluation Reports and test data.
D. Installer qualifications.
E. Warranty documentation.

1.07 QUALITY ASSURANCE

A. Manufacturer: Minimum ten (10) years' experience manufacturing EIFS.
B. Installer: Minimum three (3) years' experience installing EIFS of similar scope and complexity.

1.08 DELIVERY, STORAGE, AND HANDLING

Deliver materials in original sealed containers. Store materials off the ground and protect from moisture, freezing, direct sunlight, and temperatures exceeding manufacturer limits.

1.09 PROJECT CONDITIONS

Maintain ambient and substrate temperatures above **40°F (4°C)** during application and curing.

1.10 WARRANTY

Provide manufacturer's standard Decoplast EIFS warranty.

PART 2 – PRODUCTS

2.01 MANUFACTURER

A. Basis-of-Design Manufacturer:
Decoplast – Greenmaker Industries, West Hartford, Connecticut
Phone: 860-761-2830 | www.decoplast.com

B. Provide all EIFS and air- and water-resistive barrier components from the basis-of-design manufacturer.

2.02 AIR AND WATER-RESISTIVE BARRIER

A. Decoplast Air Water Barrier (AWB): Fluid-applied air and water-resistive barrier.
B. Accessories:
    1. Decoplast Sheathing and Transition Fabric
    2. Decoshield Self-Adhered Flashing Membrane

2.03 CONTINUOUS INSULATION

A. Expanded polystyrene (EPS) insulation board conforming to **ASTM C578 Type I** and **ASTM E2430**.

1. Nominal density: 1.0 pcf
2. Nominal thermal resistance: **R-3.6 per inch at 75°F**

2.04 INSULATION ATTACHMENT

A. Adhesives:

1. Decoplast FastGrip polyurethane spray foam adhesive
2. Decoplast polymer-modified cementitious adhesive

B. Apply adhesive in vertical ribbons to create a continuous drainage cavity.

2.05 BASE COATS

A. Cementitious base coats:

1. Decoplast Premium Dry Base Coat
2. Decoplast Liquid Base Coat Additive with Portland cement

B. Acrylic base coat:

1. Decoplast Razaplast

C. Waterproof base coat (where required):

1. Decoplast Groundcoat

2.06 REINFORCING MESH

A. Provide fiberglass reinforcing mesh compatible with EIFS system materials, including standard, intermediate, and high-impact options, as indicated.
B. Provide open-weave fiberglass reinforcing mesh compatible with Decoplast EIFS materials.
C. Select reinforcing mesh type in accordance with indicated impact-resistance requirements and exposure conditions.
D. Impact-resistance classifications are based on testing in accordance with ASTM E2486.
    1. Reinforcing Mesh Options:

A. Decoplast Standard Mesh – nominal 4.5 oz/yd^2. For areas requiring standard impact resistance.
B. Decoplast Standard Plus Mesh – nominal 6.0 oz/yd^2. For areas requiring standard impact resistance with increased basecoat build.
C. Decoplast Intermediate Mesh – nominal 11.2 oz/yd^2. For areas requiring high impact resistance.
D. Decoplast Armor Mat 15 – nominal 15 oz/yd^2. For areas requiring ultra-high impact resistance.
E. Decoplast Armor Mat 20 – nominal 20 oz/yd^2. For areas requiring ultra-high impact resistance in locations subject to severe abuse or concentrated impact.

3. Decoplast Detail Mesh – nominal 4.2 oz/yd^2
   A. For back-wrapping, diagonal reinforcement at corners of openings, terminations, and complex architectural details.
4. Impact-Resistance Classification:
   A. Reinforced base-coat assemblies utilizing the above reinforcing mesh options provide standard, medium, high, or ultra-high impact resistance classifications when evaluated in accordance with ASTM E2486.
5. Coordination: Indicate locations requiring enhanced impact resistance on the Drawings.
6. Ultra-high impact resistance reinforcement is typically used at ground-level elevations and other areas subject to increased abuse.

2.07 FINISH

A. General:

Provide EIFS finish materials manufactured by Decoplast and compatible with the specified system. Final selection of finish appearance is determined by finish tier designation and Drawings.

1. Finish Tiers: Basis of Pricing:
   A. **Tier 1 – Acrylic Textured Finishes:** Factory-mixed DPR acrylic EIFS finishes with uniform texture applied by trowel or spray. Includes smooth, fine, medium, and coarse textures.
   B. **Tier 2 - Elastomeric Textured Finishes**: Flexible acrylic or elastomeric EIFS finishes designed to accommodate increased movement and provide enhanced crack-bridging capability compared to standard acrylic textured finishes.
   C. **Tier 3 – Silicone-Enhanced Hydrophobic Textured Finishes**: EIFS finishes incorporating silicone-enhanced polymers to improve water repellency, dirt resistance, and long-term color stability compared to standard acrylic finishes.
   D. **Tier 4 – Specialty Architectural Finishes**: EIFS finishes incorporating aggregates, patterns, or enhanced aesthetics beyond standard textured finishes, including specialty architectural or decorative finishes.
   E. **Tier 5 – Simulated Masonry or Veneer Finishes**: EIFS finishes designed to replicate the appearance of brick, stone, wood, or other masonry or veneer materials, including specialty veneer-style finish systems.
2. EIFS finishes incorporating decorative aggregates, patterns, or enhanced architectural aesthetics beyond textured finishes.
3. Finish tiers indicated on the Drawings establish the basis of pricing for EIFS finishes.
   A. Color and Texture Selection:

4. Select color, texture, and pattern from manufacturer's standard offerings and indicate on Drawings or Finish Schedule.

2.08 ACCESSORIES

PVC EIFS accessories, including starter tracks, drip edges, corner beads, expansion profiles, and termination profiles. Accessories shall be manufactured from rigid PVC conforming to ASTM D4216, with dimensional stability, impact resistance, and weatherability suitable for exterior cladding applications.

PART 3 – EXECUTION

3.01 EXAMINATION

Verify substrates are plumb, smooth, dry, and structurally sound before proceeding.

3.02 SURFACE PREPARATION

Remove contaminants. Repair substrate irregularities. Seal fasteners, joints, and penetrations using approved AWB accessories.

3.03 INSTALLATION

Install air and water-resistive barrier, insulation, base coat, reinforcement, and finish in accordance with manufacturer instructions and approved details.

3.04 JOINTS AND FLASHING

Install flashing and sealant joints at openings, penetrations, and terminations.

EIFS require **positive separation** from soil.

1. 6–8 inches above finished grade
2. 2 inches minimum above paved surfaces
3. No contact with mulch, landscaping, or snow accumulation zones

3.05 PROTECTION

Protect installed work from weather, moisture, and damage.

END OF SECTION

ATTENTION/IMPORTANT INFORMATION

Greenmaker Industries products are intended **exclusively** for use by **qualified professional contractors** as components within properly designed construction assemblies. These products **shall not** be used, installed, or handled by unqualified persons under any circumstances. All installation must conform strictly to project specifications and the most current written instructions issued by Greenmaker Industries. **Any deviation is undertaken entirely at the user's risk.** Greenmaker Industries **expressly disclaims all liability** for improper installation; use within assemblies that are inadequately or incorrectly designed; use by unqualified individuals; failure or nonperformance of adjacent materials or building components; and any jobsite conditions, environmental factors, or construction activities beyond its direct control. **No responsibility is assumed for field conditions, contractor practices, or third-party inspections.**

Misuse, misapplication, or incorporation of Greenmaker Industries products into an improperly designed or constructed assembly **may result in significant damage** to the products, the building envelope, structural components, or the overall building system. Such consequences are solely the responsibility of the installer, contractor, or design professional.

Greenmaker Industries **disclaims all warranties, express or implied**, including but not limited to any implied warranties of merchantability or fitness for a particular purpose. Only explicit limited written warranties issued directly by Greenmaker Industries to building owners—under its current warranty programs—shall apply. These programs may be modified, suspended, or terminated **without prior notice**, and no verbal or field-issued assurances shall create or modify warranty rights.

For the most current and authoritative information regarding product installation, mixing, cleanup, technical specifications, limitations, and warranty provisions, consult the official Greenmaker Industries website and published technical documentation. **Reliance on outdated, third-party, or unofficial information is strictly at the user's own risk.**