

SandScape™ FIBERGLASS REINFORCED POLYESTER (LIMESTONE / SANDSTONE)

PART 1 - GENERAL

1.01 SUMMARY:

- .01 Furnish all labor, materials, joint treatment, suspension systems, scaffold, equipment and related services necessary for the complete installation of the SandScape units. Items not noted herein, which are required to make a complete installation shall also be included. The installing contractor will be responsible for supply, installation and coordination of the work outlined in this section and will do so in compliance with local codes and/or ordinances.

1.02 WORK INCLUDED:

- .01 Supply of SandScape™ units.
- .02 Erection / installation.
- .03 Joint treatment.
- .04 Supply and installation of backup supports, shimming, labor and materials, etc.

1.03 RELATED WORK SPECIFIED ELSEWHERE:

- .01 Masonry work.
- .02 Structural steel: Support framing for fiberglass components.
- .03 Rough carpentry.
- .04 Joint sealants.

1.04 QUALITY ASSURANCE:

- .01 The manufacturer of SandScape™ shall conform to the latest edition of reference specifications specified herein and applicable codes and requirements of local authorities having jurisdiction, whichever is more stringent.

1.06 QUALIFICATION:

- .01 The manufacturer of SandScape™ work shall submit evidence of satisfactory projects it has achieved in the last (5) years.
- .02 The installer of the work specified herein shall be approved by the manufacturer of the specified material.
- .03 The installer of the work shall be fully experienced in the installation of SandScape™ units shall carry out the installation efficiently and co-operate fully with other trades.

1.07 CERTIFICATION / REFERENCES:

- .01 Submit manufacturer's product data, including copies of fire test reports.
- .02 Except as otherwise additionally indicated on the drawings or specified herein, the standards referred to below, shall apply to work under this section.
 - .1 ASTM C-947 - Flexural Strength
 - .2 ASTM D-256 - Impact resistance
 - .3 ASTM D-638 - Ultimate Tensile Strength
 - .4 ASTM D-696 - Coefficient of Linear Thermal Expansion
 - .5 ASTM D-785 - Rockwell Hardness
 - .7 ASTM D-790 - Modulus of Elasticity in Flexural
 - .8 ASTM D-2583 - Indentation Hardness
 - .9 ASTM E-84 - Flame Spread Index, Smoke Developed Index

1.08 DESCRIPTION OF WORK:

- .01 This specification is intended to outline the general requirements of the DecoForm SandScape™ units as they pertain to the overall design of the project. The manufacturer's recommendations shall not govern the work in this section.
- .02 The installing contractor shall perform all work in this section, including installation, caulking (filling) and patching and will assume responsibility for coordinating installation with the work and associated trades.

1.09 DESIGN CRITERIA:

- .01 Unless otherwise stated on DecoForm's drawings, fabrication tolerances are as indicated below.
 - .1 Dimensional - all directions (0' - 10') ± 1/8"
 - .2 Dimensional - all directions (10' - 20') ± 3/16"
 - .3 Straightness along an edge or surface ± 1/16"/linear ft.
 - .4 All reveals, grooves, setbacks or returns 3° draft (min.)
 - .5 All outside corners 1/16" - 1/8" radius

1.10 SAMPLES:

- .01 Submit duplicate, minimum 3" x 3" SandScape™ samples.

1.11 SHOP DRAWINGS:

- .01 Submit for approval, shop drawings of units which show sections, details, joint treatment and the relation of the SandScape™ units to adjoining components

1.12 SCHEDULING:

- .01 Special scheduling for site coordination must be specified at time of bidding.
- 1.13 DELIVERY, STORAGE AND HANDLING:
- .01 Units shall be handled and transported per manufacturer's recommendation, in a manner so as not to create damage or excessive stresses.
- .02 SandScape™ units shall be stored level on a clean dry surface in an area protected from weather, moisture and damage. The units shall not be stacked or leaned unless instructed otherwise by the manufacturer.
- .03 The installer is responsible for chipping, cracking, or other damage to fiberglass components, after delivery to the job-site and until installation is completed and inspected approved by the Owner's representative.
- 1.14 WARRANTY:
- .01 The manufacturer warrants that the delivered material supplied will conform to samples and to specifications and will be free from defects in workmanship or material under normal use and conditions for a period of ONE year from date of shipment. Should defects, attributable to the manufacturer, appear within one year of the date of shipment, the manufacturer has the option of replacing or repairing the defective material.
- .02 Limitations: The aforementioned general warranty is exclusive. All other warranties whether expressed or implied or arising by operation of law, usage of trade, course of dealings or otherwise, are excluded. The only warranties are those expressed above. The manufacturer shall not be liable for any penalty or for any loss or damages associated with the removal or installation of its product or claims of third parties against the Purchaser.

PART 2 - PRODUCTS

2.01

.01 MANUFACTURER:

DecoForm Inc.
90 Milvan Drive
Toronto, Ontario
CANADA M9L 1Z6
Phone: (416) 745-4970
FAX: 416 745-6636
E-mail: sales@decoform.com

2.02 MATERIALS:

- .01 Show face shall be aggregate with polyester resin and ISO/NPG, ultra violet stabilized gelcoat. Standard color as per sample.
- .02 SandScape™ shall consist of a glassfiber reinforced polyester composite with glass content and thickness to meet structural design. Additional stiffeners (as required) shall be encased in the fiberglass composite to ensure straightness and strength.
- .03 Anchors and fasteners: Type 304 stainless steel where exposed; hot dip galvanized steel where unexposed.
- .04 Units will be suitably reinforced with additional materials (such as wood, metal, etc.) as required.
- .05 Caulk joints where required, with Sonneborn Ultra , one-component elastomeric sealant or equivalent low modulus urethane product. Do not use acrylic based products. Color of caulk to be selected by Architect.

2.03 PHYSICAL PROPERTIES:

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|-----|--------------------------|--------------|--------------------------------------|
| .01 | Glass Content | | - 25% by weight |
| .02 | Specific Gravity | | - 1.7 |
| .03 | Shell Thickness | | - 3/16 nominal - 1/8" min. |
| .04 | Flame Spread Index (FSI) | (ASTM E84) | - (Class 1)(<25 FSR) |
| .05 | Flexural Strength | (ASTM D790) | - 19,000 p.s.i. |
| .06 | Flexural Modulus | (ASTM D790) | - 12,000 |
| .07 | Tension Modulus | (ASTM D790) | - 2.7 – 3.8-x 10 ⁶ p.s.i. |
| .08 | Impact Strength | (ASTM D256) | - 16 ft.-lb./in. |
| .09 | Barcol Hardness | (ASTM D2583) | - 35 - 60 |
| .10 | Weight | | - 1.65 to 2.3 lbs/sq.ft. |

PART 3 - EXECUTION

3.01 EXAMINATION:

- .01 Prior to the manufacture of components, the installer shall check all pertinent site dimensions and conditions against the manufacturer's drawings and relay discrepancies to the manufacturer for inclusion in the drawings.
- .02 Prior to installation, the installer shall compare job site dimensions and conditions against the Architect's drawings and shall report any discrepancies to the General Contractor, the Architect and the manufacturer. Work shall not proceed until discrepancies are corrected.
- .03 Prior to installation, the installer shall examine pertinent job-site conditions to insure proper arrangement and fit of the work. Start of work implies acceptance of job-site condition.

.04 All surfaces or framing structures shall be plumb and true as required.

3.02 PREPARATION:

- .01 Examine the contract drawings and specifications in order to ensure the completeness of the work required under this section.
- .02 Verify measurements and dimensions at the job-site and cooperate in the coordination and scheduling of the work of this section with the work of related trades, so as not to delay job progress.

3.03 ERECTION:

- .01 Install work as indicated on drawings, as specified herein and in accordance with approved shop drawings and manufacturer's recommendations.
- .02 Provide all support framing/reinforcing/support brackets required for work of this section and to ensure solid and secure installation.
- .03 Provide temporary supports to maintain position as units are being installed.
- .04 SandScape™ units shall be handled with care and lifted with appropriate equipment.
- .05 SandScape™ units shall be installed true and plumb, shimmed where necessary.
- .06 Caulk or fill all joints as required following Manufacturer's recommendations. Control joints shall be provided where required as specified by Architect.
- .07 Expansion joints shall be installed as per Architect's recommendation.

3.04 TOLERANCES - ERECTED UNITS

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|---|------------------|
| .01 Face width of joint | ± 1/8" (3.2 mm.) |
| .02 Variation from plumb (in any dist. of 20' max.) | ± 1/8" (3.2 mm.) |
| .03 Variation from level (in any dist. of 20' max.) | ± 1/8" (3.2 mm.) |
| .04 Max. differential between adjacent units in erected position (non-cumulative) | ± 1/8" (3.2 mm) |

3.05 PATCHING AND CLEANING:

- .01 Repair any defects found after the work of all trades has been completed, regardless of how, or by whom, the damage was caused. Patching shall match the original work. Use Manufacturers recommended materials when available.
- .02 Patch all countersunk fasteners and damages to match unit texture, finished flush with face of unit. . Use Manufacturers recommended materials when available