

Hemp SHAPES™ – CSI Spec (Sustainable Materials)

HEMP WALL PANELS

1.03 QUALITY ASSURANCE

A. Qualifications:

1. Manufacturer Qualifications:

- a. Use of hemp sourced only in Southwest Europe
- b. Use of low-VOC, E0 Compliant, and CARB compliant components, adhesives and finishes in manufacturing production process.
- c. Prior production of material for no less than 3 years.

1.04 DELIVERY, STORAGE, AND HANDLING

A. Deliver wall tile/paneling to project site, or fabrication site, not less than 5 days prior to start of installation (to allow for suitable acclimation). Open boxes to increase acclimation.

1.05 PROJECT/SITE CONDITIONS

A. Environmental Requirements: Installation spaces, panels and adhesive must be maintained at normal occupancy temperature and humidity levels (HVAC working) for minimum of 48 hours prior to installation.

1.06 WARRANTY

A. Special Warranty:

1. Sustainable Materials' Structural Warranty: 10 years against delamination or separation because of a manufacturing defect when installed and maintained in accordance with manufacturer's installation instructions.

PART 2 – PRODUCTS

2.01 MANUFACTURER / SUPPLIER

- A. Sustainable Materials LLC
5403 Western Ave #C
Boulder, CO 80301
USA

Tel: (720) 449-3063

e-mail: info@sustainablematerials.com

Website: <http://www.sustainablematerials.com/muratto>

- B. Hemp SHAPES™ panels (select one, or multiples based on design):
- a. Stripes
 - b. Woven
 - c. Bands
- C. Colors (select one, or multiples based on design):
- a. Natural
 - b. White
 - c. Thatch

- d. Sage
- e. Yellow
- f. Orange
- g. Red
- h. Raspberry
- i. Merlot
- j. Lime
- k. Azure
- l. Blue
- m. Forest
- n. Light Grey
- o. Dark Grey
- p. Black
- q. Brown

D. Substitutions: None Permitted.

2.02 MATERIALS

A. Hemp SHAPES™:

1. Species: Hemp

2. Size:

- a. Stripes
 - a. 690mm x 390mm x 7mm (approx. 27-1/6" x 15-1/3" x 5/16")
 - b. Over-lap edge tile
 - c. Coverage = 29.6 sq. ft. per box (10 panels)
- b. Woven
 - a. 500mm x 500mm x 27mm (approx. 19-5/8" x 19-5/8" x 1-1/16")
 - b. Coverage = 10.76 sq. ft. per box (4 panels)
- c. Bands
 - a. 1000mm x 500mm x 12mm (approx. 39-1/2" x 19-3/4" x 1/2")
 - b. Coverage = 10.84 sq. ft. per box (2 panels)

3. Physical Property Performance Requirements:

- a. Composition: 100% hemp
- b. Dimensional Stability: $\leq 0.4\%$ (per EN 434)
- c. Thermal Resistance: 0.47 m²C/W
- d. Thermal Conductivity: 0.0488 W/mC
- e. Sound Absorption: NRC = 0.30
- f. Fire-rating (per ASTM E84): Currently Testing for Class A

B. Installation Adhesive: Wakol Loba D3540 contact adhesive or Wakol Loba MS 262 Trowel urethane adhesive

C. Finish: Through-color granulation with protective finish

PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine substrate(s) to which Hemp SHAPES™ will be applied:

- 1. Components must be clean, dry, and free of contamination that would interfere with adhesive bond.

2. Drywall or other wall substrate will need 'priming' (or sealing) to ensure suitable bond with contact cement
- B. Verify that HVAC system is operating and maintaining occupancy level temperature and humidity conditions.
 - C. If either of the above need attention, coordinate with responsible entity to correct unsatisfactory conditions.

3.02 PREPARATION

- A. Acclimatization: Open all Hemp SHAPES™ packaging to allow the material to acclimate for a minimum of 72 hours prior to the start of the installation.
- B. Fix substrate if needed (as per Examination needs and those relating to the adhesive bond per the instructions of the adhesive selected for use).

3.03 INSTALLATION

- A. Find Center: using a chalk line, find the symmetrical axes of the wall sides to determine starting point. Measure from the middle to ensure that the edge pieces (those against the adjacent walls) are identical in size and greater than 2" in width.
- B. Follow the Manufacturer's installation instructions of the selected adhesive. Recommended adhesives: D3540 Contact adhesive or MS 262 urethane adhesive (both available from Sustainable Materials).
- C. Install in pattern suitable based on specification plans.
- D. Press tiles into place (per adhesive Manufacturer's instructions and dry time requirements)

3.04 CLEANING and MAINTENANCE

- A. Clean and maintain in accordance with guidelines presented in Installation Guidelines.

With any questions, or for this in a digital format, contact:

Sustainable Materials, LLC
5403 Western Ave, #C
Boulder, CO 80301
Ph: (720) 449-3063
Email: info@sustainablematerials.com
Web: www.sustainablematerials.com