

**DIVISION 12 00 00      FURNISHINGS**  
**SECTION 12 93 00      SITE FURNISHINGS**  
**SECTION 12 93 43      SITE SEATING AND TABLES**  
**SECTION 12 93 43.13    SITE SEATING**  
**BEVEL BENCH**

**Part 1 General**

01. Summary

A. Section Includes:

1. Backless bench, TENSU Ultra High Performance Concrete.

02. Submittals

A. Provide submittals in accordance with Section 01 33 00 – Submittal Procedures.

B. Product data:

1. Manufacturer's standard product literature.
2. Shop drawings.
3. Installation instructions.
4. Maintenance instructions.

C. Submit finish samples for approval.

03. Quality Assurance

A. Manufacturer Qualifications:

1. Minimum 15 years experience in the manufacture of site seating.
2. Provide reference list of at least ten major transportation authorities, municipalities, universities, or other high-use public environments currently using site seating fabricated by the manufacturer.

04. Delivery, Storage and Handling

- A. Handle products in accordance with manufacturer's instructions.
- B. Store products in manufacturer's original packaging until ready for installation.
- C. Protect products from impacts and abrasion during storage.

05. Warranty

A. Provide manufacturer's standard warranty:

1. Warranty terms: one year from date of invoice against defects in materials and workmanship.

**Part 2 Products**

01. Manufacturer

A. Basis-of-design product: provide backed and/or backless benches based on the product named:

1. Bevel Bench by Forms+Surfaces.

2. Manufacturer Contact:

Forms+Surfaces  
30 Pine Street  
Pittsburgh, PA 15223  
phone: 800-451-0410  
fax: 412-781-7840

email: sales@forms-surfaces.com  
website: www.forms-surfaces.com

## B. Benches

1. Materials:
  - a. Body: TENSLE glass fiber reinforced ultra high performance concrete (UHPC).
    - 1) TENSLE Material Performance Characteristics:
      1. Compressive Strength: ? 18,275 lbs./in<sup>2</sup> (126 MPa).
      2. Flexural Strength: ? 2,756 lbs./in<sup>2</sup> (19 MPa).
      3. Tensile Strength: 1,160 lbs./in<sup>2</sup> (8 MPa).
      4. Water Absorption: < [measurable limit (kg/m x h0.5)] [3.5%].
    - b. Fasteners: stainless steel.
    - c. Mounting brackets (optional): stainless steel.
  2. Finish: intrinsic UHPC finish, Natural color with invisible hydrophobic treatment.
  3. Dimensions and Weight:
    - a. 74" long x 18" deep x 18" high.
    - b. 200 lbs.
  4. Mounting:
    - a. Freestanding.
    - b. Surface mount. Provide stainless steel installation hardware when surface mount is specified.

## Part 3 Execution

01. Examination
  - A. Verify that substrates are stable and capable of supporting the weight of items covered under this section.
  - B. Verify that substrates have been adequately prepared to securely anchor those items that will be surface mounted.
02. Installation
  - A. Install according to the manufacturer's installation instructions.
  - B. Install in conformance to applicable ADA guidelines and End User's established Accessibility policies.

**END OF SECTION**