

**SPECIFICATION
SECTION 11205
DENSITY CURRENT BAFFLE SYSTEM**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Density Current Baffles.

1.2 REFERENCES

- A. ANSI/AWWA F101 - Contact Molded, Fiber-glass Reinforced Plastic Wash Water Troughs and Launders; American Water Works Association.
- B. ASTM D 256 - Standard Test Methods for determining the Pendulum Impact Resistance of Notched Specimens of Plastics.
- C. ASTM D 570 - Standard Test Method for Water Absorption of Plastics.
- D. ASTM D 618 - Standard Practice for conditioning Plastics and Electrical Insulating Materials for testing.
- E. ASTM D 638 - Standard Test Method for Tensile Properties of Plastics.
- F. ASTM D 648 - Standard Test Method for Deflection Temperature of Plastics under Flexural Load.
- G. ASTM D 696 - Standard Test Method for Coefficient of Linear Thermal Expansion of Plastics between -30 degrees C and 30 degrees C.
- H. ASTM D 790 - Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.
- I. ASTM D2583 - Test Method for Indentation Hardness of Rigid Plastics by means of a Barcol Impressor.

1.3 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Test results of fiberglass reinforced plastic laminate.
- C. Shop Drawings: Show:
- Critical dimensions, jointing and connections, fasteners and anchors.
 - Materials of construction.
 - Sizes, spacing, and locations of structural members, connections, attachments, openings, and fasteners.
 - Field measurements or plans.
- D. Samples: 8 x 8 inch sample of fiberglass reinforced plastic laminate.
- E. Manufacturer's installation instructions.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Store products indoors and protect from construction traffic and damage

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. Provide products fabricated by Warminster Fiberglass Co.,.

2.2 DENSITY CURRENT BAFFLE SYSTEM

- A. Material: Fiberglass reinforced polyester resin composite laminate, having the following physical characteristics.
- Color: White
 - Tensile strength (ASTM D 638): Minimum 9,000 psi.
 - Flexural strength (ASTM D 790): 16,000 psi.
 - Flexural Modulus (ASTM D 790): 900,000 psi.
 - Impact, notched, Izod (ASTM D 256): 10.0 ft-lb/in.
 - Barcol hardness (resin-rich surface) (ASTM D 2583): 40 minimum, average.

- Water absorption, (ASTM D 570): 0.2 percent at 24 hrs.
- Heat distortion point, (ASTM D 648): 175 degrees F.
- Coefficient of thermal expansion, average (ASTM D 696): 0.0000105 in/in/degree F.
- Test coupons prepared in accordance with ASTM D 618.

B. Baffle Segments:

- Nominal baffle length to be 10 feet.
- Molded of fiberglass-reinforced polyester resin composite laminate, minimum 3/16 inches wall thickness, with minimum 20 mil thick gel coat each surface.
- Mold integral mounting flange 1/4 inch thick along top edge, factory drilled for anchors.
- Mold face sloping inward and downward to resist solids build-up.
- Mold integral reinforcing flange 1/4 inch thick at bottom edge to resist sag and uplift.
- For rectangular tanks, mold baffle segments straight.
- For round tanks, mold baffle segments curved for tank radius indicated on drawings.
- Factory-drill holes for end-to-end connection of baffle segments in field.
- Resin coat all cut edges and drilled holes.

C. Mounting Brackets: Angle brackets fabricated of same composition as baffle segments.

- Provide two support brackets for each baffle segment.
- Factory-drill holes for end-to-end connection of baffle segments in field.
- Resin coat all cut edges and drilled holes.

D. Fasteners: 3/8 inch diameter wedge anchor bolts and fasteners of Type 316 stainless steel.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that dimensions are correct and project conditions are suitable for installation. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install products in accordance with manufacturer's instructions.
- B. Ensure that products are installed plumb and true, free of warp or twist, within tolerances specified by the manufacturer and as indicated in the contract documents.
- C. Install in accordance with approved shop drawings and in true and proper alignment.
- D. Mounting Brackets: Install two brackets per baffle segment, equally spaced; anchor to substrates using 3/8 inch diameter stainless steel wedge anchors.
- E. Baffle Segments: Install to full extent indicated on drawings; secure to brackets using stainless steel fasteners.

3.3 ADJUST AND CLEAN

- A. Clean surfaces in accordance with manufacturer's instructions.
- B. Remove trash and debris, and leave the site in a clean condition.

