

PRODUCT SPECIFICATIONS SLIDE GATES & GUIDES
SECTION 11285
Revised 12-4-2024

PART 1 GENERAL

- 1.1 Section Includes
 - A. FRP slide gates.
 - B. FRP guides
- 1.2 Related Sections
 - A. Section 11200 - Water Supply and Treatment Equipment.
 - B. Section 11300 - Fluid Waste Treatment and Disposal Equipment.
- 1.3 References
 - A. ANSI/AWWA F101 - Contact-Molded, Fiberglass-Reinforced Plastic Wash Water Troughs and Launderers.
 - B. ANSI/NSF 61 - Drinking Water System Components - Health Effects.
 - C. ASTM D 256 - Standard Test Methods for Determining the Izod Pendulum Impact Resistance of Plastics.
 - D. ASTM D 570 - Standard Test Method for Water Absorption of Plastics.
 - E. ASTM D 618 - Standard Practice for Conditioning Plastics for Testing.
 - F. ASTM D 638 - Standard Test Method for Tensile Properties of Plastics.
 - G. ASTM D 790 - Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.
 - H. ASTM D 2583 - Standard Test Method for Indentation Hardness of Rigid Plastics by Means of a Barcol Impresser.
- 1.4 Submittals
 - A. Comply with Section 01330 - Submittal Procedures.
 - B. Product Data: Submit manufacturer's product data, including description and physical properties of fiberglass reinforced plastic laminate. Submit manufacturer's installation instructions.
 - C. Shop Drawings: Submit manufacturer's shop drawings showing plans, elevations, sections, and details of materials, components, structural supports, dimensions, tolerances, connections, attachments, adjustments, openings, mounting, fasteners, anchors, and assembly hardware.
 - D. Manufacturer's Certification: Submit manufacturer's certification that materials comply with specified requirements and are suitable for intended application.
- 1.5 Delivery, Storage, and Handling
 - A. Delivery: Deliver materials to site banded on skids or other suitable packaging for ease of handling and to minimize damage during shipping, with labels clearly identifying manufacturer.
 - B. Storage: Store materials in clean, dry area in accordance with manufacturer's instructions.

C. Handling: Protect materials from damage during handling and installation.

PART 2 PRODUCTS

2.1 Manufacturer:

National Manufacturing Water Treatment Products 7870 West Ridge Road Fairview,
PA 16415 dvorse@nationalcomposites.com

2.2 FRP Slide Gates and Guides

A. Material:

1. Fiberglass reinforced isophthalic polyester resin contact-molded composite laminate.
2. Nominal Thickness: As required by design.
3. Molded-In Reinforcement: As required by design.
4. Gel-Coat Finish: 10 to 20 mils thick on both sides, with ultraviolet inhibitor.
5. Cut Edges: Seal with polyester resin.
 - a) Glass: Type E, random chopped with chrome or silane finish.
 - b) Binder: Compatible with resin.
6. Glass Strand Length: Minimum 1 inch.
7. Adequate contact molding pressure to ensure complete resin wet-out of glass fibers.
8. Color: Gloss White

B. Physical Properties: Per AWWA

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|-----------------------------------|----------------------|
| 1. Tensile Strength, ASTM D 638: | 12,000 psi, minimum |
| 2. Flexural Strength, ASTM D 790: | 19,000 psi, minimum |
| 3. Flexural Modulus, ASTM D 790: | 900,000 psi, minimum |
| 4. Barcol Hardness, ASTM D 2583: | 35, minimum |
| 5. Notch Izod Impact, ASTM D 256: | 13ft-lb/in., minimum |
| 6. Water Absorption, ASTM D 570: | 0.2 percent, minimum |

C. Compliance:

1. ANSI/AWWA F101, Type I.
2. ANSI/AWWA F101, Type II.

D. Sizes: As required by the manufacturer's design to meet dimensions on the drawings and performance load requirements.

E. Gate Handles: Aluminum, 1/2 inch thick. Secure to gate with 1/2-inch by 1-1/2-inch stainless steel hex head machine bolts.

F. Guide Frames: Molded or fabricated from fiberglass reinforced plastic structural shapes.

1. Wall-mounted guides.
2. Surface-mounted guides.
3. Embedded in concrete.

E. Seals: Neoprene. Or as required.

F. Fasteners and Anchors: [Type 304] [Type 316] stainless steel.

PART 3 EXECUTION

3.1 Examination

- A. Examine areas to receive slide gates and guides.
- B. Verify field dimensions.
- C. Notify the Engineer of conditions that would adversely affect installation. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.2 Installation

- A. Install slide gates and guides in accordance with manufacturer's instructions.
- B. Install slide gates and guides plumb, level, square, in true and proper alignment, and without warp or twist.

END OF SECTION