

Product: *(Insert Name of Product)*
Project: *(Insert Name of Project)*
Date: *(Date)*

SPECIFICATION SECTION 11301 FIBERGLASS MANHOLE COVER

PART ONE -GENERAL INFORMATION

- 1.01 Furnish *(Insert Number)* fiberglass composite manhole frame and cover sets.
- 1.02 References and related standards:
- A. Section 33 01 00 Operation and Maintenance of Utilities
 - B. Section 33 39 13 Sanitary Utility Sewerage Manholes, Frames, and Covers
 - C. Section 33 71 19 Electrical Underground Ducts and Manholes
 - D. Section 33 81 26 Communications Underground Ducts, Manholes, and Handholes
- 1.03 Delivery, Off Loading and Storage
- A. Off load cover according to manufacturer's instructions
 - B. Inspect Cover completely and report any damage during shipping
 - C. Store Cover indoors and protect from construction traffic and damage.

PART TWO - PRODUCT

- 2.01 Products
- A. Product provided by Virtual Polymer Compounds, LLC; 10478 Ridge Road, Medina NY 14103; Tel. (585)735-9668.
 - B. Request for substitution will be considered only if submitted and approved in advance of bid date. Substitution request must include evidence that the product meets all standards stated herein; that the manufacture has ten years of experience fabricating the product; there is a complete quality assurance program in place such as ISO 9001.
 - C. Substitution not submitted and approved in advance of bid date will not be considered.
- 2.02 Material of Construction
- A. Fiber Reinforced Polymer containing 45-70% fiber reinforcement
 - B. Thermoset resin matrix
- 2.03 Corrosion Performance
- A. Superior performance in aggressive environments: Sewer, Petrochemical, Gasoline, Diesel, De-Icing solutions, Salt water.

- 2.04 Fatigue Performance
 - A. 2 million cycles at 16,000 lbs: No visible Damage.
 - B. Must meet allowable permanent set to the applicable class.
 - C. Performed in a manner approximating the field installation as accurately as possible.
 - D. Meets proof load requirements US AASHTO M306-05 H-20 & H-25 or EN 124 Class A-D
- 2.05 Load Carrying Capacity
 - A. Meets AASHTO M306-05 H-20 and H-25 traffic requirements of 50,000 lb, with 100,000 ultimate load bearing.
- 2.06 Use-ability
 - A. Product must facilitate easy removal by one person.
 - B. Minimum strength to weight ratio = 750:1
 - C. There shall be no possibility of corrosion welding between the cover and the frame, preventing damage to the infrastructure when opening.
 - D. Integrated gasket system to reduce traffic shock and abatement of noise and malodors
- 2.07 Pedestrian Safety
 - A. Non-conductivity of electricity
 - B. Heat insulating
 - C. Skid slip performance: Greater than 0.6 as described in ASTM C1028 Standard

Product Series	Frame & Cover Weight	Cover Only Weight
2400 (22" clear open)	54 lbs	28 lbs
2600 (24" clear open)	60 lbs	30 lbs
3200 (30" clear open)	115 lbs	55 lbs
3800 (36" Clear open)	140 lbs	75 lbs

PART THREE - EXECUTION

- 3.01 Carefully remove cover from original crating only at the time of installation. Examine the unit completely and report any damage to the unit prior to installation.
- 3.02 Verify that the dimensions of the area designated for installation are correct and suitable for cover installation. Report any anticipated problems at once.
- 3.03 Installation:
 - A. Install according to installation instructions provided by the manufacturer.
- 3.04 After installation, clean cover surface in accordance with manufacturer's instruction. Remove all installation and shipping debris from site.

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