

The ChamberMaxx Chamber

The ChamberMaxx polypropylene stormwater detention chamber has undergone extensive development and structural qualification investigation. The result is a robust and reliable product which meets the very specific design, manufacture, and performance requirements of the ASTM F2418 Standard Specification for Polypropylene Corrugated Wall Stormwater Collection Chambers. The following is a summary of the design qualification.

The ChamberMaxx injection molded chamber is made from a high quality UV stabilized co-polymer polypropylene which meets the ASTM F2418 material classification requirement as PP0330B99945 per ASTM D4101.

An extensive test program demonstrates that the ChamberMaxx chambers exceed the minimum material performance requirements set forth by the product specification for short term and both 50 and 75 year strength, stiffness, and toughness, including material environmental stress crack resistance (ESCR) which exceeds industry requirements.

The ChamberMaxx structural qualification to ASTM F2418 includes a CANDE FEA predicted installed structural performance which safely meets the AASHTO LRFD Section 12 Design Specification for Buried Structures. As required, performance verification through full scale installation and monitoring was conducted in successful support of the safety of the chamber design and installation.

The ChamberMaxx chamber installation was evaluated for safety with load factors for the vehicle and earth fill condition of 1.75 and 1.95 respectively. The general installation capabilities resulting are stated as:

- Minimum Cover: 18 in.
- Maximum Cover, 75 years: 8 ft.*
- Live Load Design Truck HS25 (HL93)
- Minimum Chamber Row Spacing 5 in

* Deeper Cover is attainable, see CONTECH Design Engineer for specific installation requirements.

Chamber Manufacture

The ChamberMaxx chamber and virtually all of its materials of construction are manufactured at ISO 9001 certified US facilities. The chambers are produced with state of the art structural web injection molding equipment resulting in a reliable, high quality product. Weighing approximately 80 pounds, the chamber has a minimum average wall thickness of .175 inches and measures approximately 51 x 31 x 96 inches in overall dimension. Quality control of the copolymer production resin and final product molding and inspection controls ensure repeatable long term performance of the product.

For further inquiries, please contact your CONTECH technical representative.

Respectfully Submitted,



Michael P. Stone
Sr. Product Development Engineer
CONTECH Construction Products, Inc.