



Durable, Reliable, Long-Lasting Septic Tanks *A Guide to ASTM C1227*

What is ASTM C1227?

ASTM International is one of the world's largest standards-developing organizations which oversees more than 12,000 standards used across hundreds of industries.

ASTM C1227, "Standard Specification for Precast Concrete Septic Tanks" is a specification covering design requirements, manufacturing practices and performance requirements for monolithic or sectional precast concrete septic tanks.

ASTM C1227 is a specification with continual, ongoing peer review from professionals throughout the industry. Therefore, the latest edition of the specification should always be used for reference.



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Why was ASTM C1227 developed?

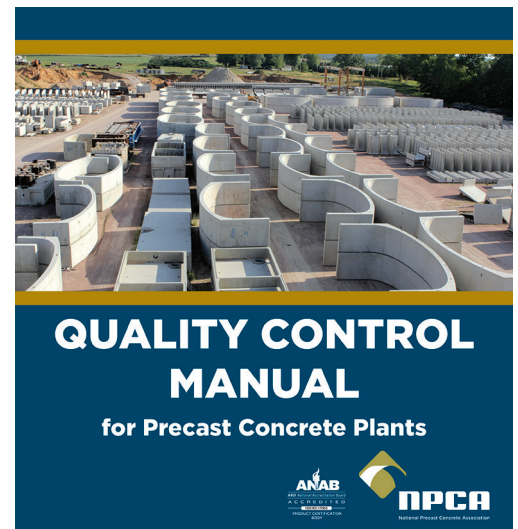
This standard was first published in the '90s to address the need for standardized concrete septic tank design and production, as engineers, regulators, and communities became increasingly reliant on these structures for long-term wastewater treatment solutions.

Adopting and implementing ASTM C1227 or equivalent in state and local health codes can help ensure the health and safety of our communities; protection of soil, groundwater and surrounding habitats; and the performance of the tanks at the heart of it all.

What does ASTM C1227 do?

ASTM C1227 addresses the following items:

- Ordering information such as design requirements for depth of earth cover, live load applied at the surface, and ground water level.
 - o This information helps provide guidance to the manufacturer when placing an order for a precast concrete septic tank. The precast concrete manufacturer uses these details to determine the necessary structural and physical design requirements to meet the specific needs of each job.
- Materials such as cement, aggregates, water, admixtures, reinforcement and concrete mixtures, as well as sealants and pipe connections.
 - o A combination of high-quality raw materials, mix designs and supplemental equipment, like sealants and connectors, is key to producing high-quality, long-lasting tanks and effective treatment systems. The materials outlined in ASTM C1227 must conform to standards as well, to ensure quality, performance and longevity.
- Structural design requirements including loading, concrete strength, buoyancy considerations, reinforcing requirements and steel placement.
 - o This information is critical for ensuring the tank is designed according to the anticipated service conditions, including loading (traffic-rated or non-traffic-rated), water table depth and depth of bury so the structure can provide efficient treatment throughout its service life.
- Physical design requirements for items including compartments, dimensions, inlets, outlets, baffles, tees and openings.
 - o Tanks can be designed and configured to accommodate most any need, on-site challenge or unique application. The locations, dimensions and use of these components are important factors that affect wastewater treatment inside the tank, tank serviceability and safety.
- Quality control, sampling, performance test methods, permissible variations, repairs and product marking.
 - o Quality assurance and quality control provide the foundation for quality, durability and resilience. Testing ensures the tank meets design and performance requirements.



Have questions?

To obtain the latest edition of ASTM C1227, visit: www.astm.org/Standards/C1227.htm

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