



# TECHNICAL BULLETIN: POLYETHYLENE VS. CONCRETE

## MATERIAL CHARACTERISTICS

- **Concrete is porous, subject to chemical breakdown, and general wear and tear during installation.**
  - The material risks corrosion over time from the environment on the inside and outside of the tank. Oily wastewater on the inside of the tank will break down concrete. Corrosion is sped up by the introduction of surfactants often used in car washes and vehicle maintenance shops.
  - Native soils around the country vary. Some soils may have pH levels that significantly deviate from 7.0 (neutral). High or low pH soils will also add to corrosion on a concrete tank, but from the outside in.
  - There is a much higher likelihood of cracking/damage to a concrete tank during transit. Most tanks are not water-tested for leaks once on site.
- **Rotationally-molded polyethylene is nonporous, corrosion-resistant, and lighter than concrete.**
  - Striem backs this fact with a [lifetime guarantee](#). All of our tanks are quality checked via a spark test and high-lumen light test.
  - Polyethylene is resistant to a wide array of chemicals and compounds, including hydrocarbons and aggressive surfactants.
  - Our polyethylene tanks have a light dry weight. This can significantly cut installation and shipping costs. Concrete tanks (of any size) typically require additional equipment for installation.

## KEY CONSIDERATIONS

- When using a concrete oil separator rather than a polyethylene oil separator, there is an increased risk of hydrocarbons leaking through compromised areas of the tank and leaching into the native soil, groundwater, and surrounding waterways.
- In general, oil separators are not pumped out frequently. This compounds the corrosion effect of the wastewater residing in the oil separator. This makes the selection of a robust material of construction very important in the oil separator space.
- If an oil separator is equipped with a monitoring system, it is very important to ensure the tank is not compromised from a leak, otherwise the monitoring system will not perform as intended.

➤ For product specifications, REVIT and CAD files, or general information, please visit [striemco.com](http://striemco.com).



*Pictured:*

*Striem replaces a corroded concrete oil separator with a durable, polyethylene oil separator.*

[Read the full story.](#) 



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