



Fuel Line Tubing for Small Engines: Transparent or Opaque?

Clear Tubing is for More Than Aquariums

By Jackie Fiocca

Lawn and garden power equipment, which can be expensive to purchase, also can be expensive to repair if simple maintenance checks aren't followed.¹ Yet even those who perform regular maintenance on their small engine equipment will encounter an engine that won't start, is hard to start or doesn't perform well after started. While this can indicate a serious problem, most often the issue is minor.²

From the do-it-yourselfer to the repair shop professional, troubleshooting any issue typically begins with a visual inspection. And given all engines need fuel to start and run, the most obvious starting point is the fuel delivery system. A damaged fuel line can restrict gas flow and prevent the engine from starting and running and air in a fuel line can cause an engine to fail to operate or stall. Clear tubing is the obvious choice over opaque tubing when performing a visual inspection. Benefits of clear tubing include:

- Offers easy observation of the fuel flow to determine if the engine is running dry
- Allows repair shops to quickly identify any trapped air – an indicator of a leak and a safety concern.
- Helps quickly identify if the fuel line needs to be replaced – a small and inexpensive fix to prevent a potential equipment failure
- Increases productivity by saving time for the shop technician to diagnose any fuel system problems

Survey results have shown most consumers place a very high value on ease of starting and ease of maintenance with small engines.³ An important factor that can affect both is the type of fuel. With the increased use of ethanol in fuel and because of ethanol's effect on rubber and plastic,⁴ there is a misperception that clear tubing doesn't last and isn't tough enough, that it hardens, cracks and leaks.

However the success, reliability and longevity of Saint-Gobain's Tygon® LP Series Fuel Line products – all compliant with US Environmental Protection Agency (EPA) and California Air Resource Board (CARB) low evaporative emission standards – are proof positive that transparent tubing is for much more than aquariums.

Saint-Gobain's [Tygon LP1200](#) transparent tubing enables technicians to easily diagnose fuel flow or leak problems and is ideal for equipment such as chain saws, augers, leaf blowers and tillers to name a few. Its patent-pending design offers superior fitting retention and resistance to swelling, hardening and cracking caused by hydrocarbon-based fluids. Tygon LP1200 is engineered with multi-layer construction and its fluoropolymer liner is compatible with higher ethanol blend gasoline up to 100%. The unique design of Tygon LP1200 maintains its flexibility even in subzero temperatures to ensure sufficient fuel pickup when the tool is operated in any position.

Offering superior clarity and flexibility, [Tygon LP1500](#) provides easy observation of fuel flow and is ideal for hand-held outdoor power equipment. It's compatible with E-10 ethanol blend fuel and its UV resistant out jacket prevents premature aging.

[Tygon LP1100](#) for non-submersable applications such as generators, lawn mowers and etc. is translucent yellow to provide quick observation and diagnosis. Its fluoropolymer liner also ensures complete compatibility with higher ethanol blend gasoline up to 100%.

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Resources

¹ Source: Consumer Reports (<http://www.consumerreports.org/cro/2013/07/maintaining-your-lawn-and-garden-equipment/index.htm>)

² Source: Grounds Maintenance (http://grounds-mag.com/mag/grounds_maintenance_writing_prescription_sick/)

³ Source: Chicago Tribune (<http://www.chicagotribune.com/sns-201505181900--tms--askbildrctnab-a20150529-20150529-story.html>)

⁴ Source: Hemmings Daily (<https://www.hemmings.com/blog/2014/12/05/tech-101-fuel-line-hose-what-you-should-and-should-not-use/>)

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About Saint-Gobain

[Saint-Gobain](#) designs, manufactures and distributes materials and solutions which are key ingredients in the wellbeing of each of us and the future of all. They can be found everywhere in our living places and our daily life: in buildings, transportation, infrastructure and in many industrial applications. They provide comfort, performance and safety while addressing the challenges of sustainable construction, resource efficiency and climate change. With 2016 sales of more than \$43 billion, Saint-Gobain operates in 67 countries and has more than 172,000 employees.

[Saint-Gobain's Performance Plastics](#) business is headquartered in Solon, Ohio, and employs 6,000 people in 22 countries. It is a world leader in high-performance plastics, including flexible tubing, seals, coated fabrics, foams, window film, barrier/release films, tapes, medical components, fluid handling systems and bearings.

[Saint-Gobain's Process Systems](#) business unit helps customers achieve safety, performance and brand assurance through a broad range of capabilities that rely on superior engineering and customer support. Our product applications include those in the food, beverage, habitat, aerospace, chemical and electronics sectors. We've helped customers in all of these industries achieve goals in innovation, efficiency, sustainability and product integrity through customized solutions such as flexible tubing, gaskets, seals, hoses, fittings, pumps, valves and manifolds.

