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Ethanol Compatibility of Tygon® LP-1200 from Saint-Gobain

By Lily Lei

As a gasoline powered outdoor power equipment manufacturer or a distributor delivering aftermarket replacement parts for power tool service providers, one of the biggest challenges is to make sure the ethanol blend gasoline from most gas stations do not cause damages to the fuel systems of the equipment or parts. Ensuring customers' satisfaction with the quality of the equipment or the repair service are key to your brand promise and to build your brand equity.

One easy way may be to advise customers not to use ethanol-enriched gasoline. But this seems to be a long shot. Very few people pay attention to the gasoline they pump and just get whatever is available from their neighborhood gas station. However, most of the gasoline these days contains ethanol, either 10% or up to 85%. Therefore, fuel line tubing or hoses used in gasoline equipment, as key components of these fuel systems, must be ethanol compatible. Additionally, in order to stabilize ethanol blend gasoline, some customers may use fuel stabilizers to neutralize the impact ethanol may have on the fuel system. This further requires manufacturers or aftermarket parts distributors to select tubing or hoses that are chemically resistant to those fuel additives.

[Tygon® LP-1200](#) from Saint-Gobain Performance Plastics is engineered to meet those challenges. The tubing is co-extruded with an excellent chemical and ethanol compatible fluoropolymer liner that can take up to 100% ethanol. To meet the US Environment Protection Agency (EPA)'s and Californian Air Resource Board (CARB)'s low evaporative emission standards requirement of 15g/M2/day, LP-1200 was intensively tested with 10% ethanol blend fuel (E10) to ensure the product's integrity. Meanwhile, during the development of Tygon® LP-1200, tests confirmed fitting retention after exposure to E10, E15, and E85 fuels to provide a strong seal, an important safety requirement for fuel delivery systems in such outdoor power equipment.

Tygon® LP-1200 is engineered to meet the demanding requirements of handheld power equipment applications. Its non-filler fluoropolymer inner core ensures clean fuel transfer and eliminates the risk of filler extractables commonly seen in rubber fuel hoses. The tubing is very flexible, allowing sufficient fuel pick-up regardless of tool orientation during operation and weather conditions. Its transparent color also provides the benefit of better observing fuel flow and facilitating diagnosis when the fuel system needs repair or service.

Tygon® LP-1200 has been the fuel tubing choice for handheld gasoline tools. The robust testing data has brought peace of mind to many handheld equipment manufacturers and distributors who rely on Tygon® LP-1200 to deliver their brand promise to their customers. For more information on Tygon® LP-1200, please click [here](#).

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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.

