

BARRIER TECHNOLOGY



FUEL SYSTEMS

## FUEL SYSTEMS

Exceed evaporative emission standards while maintaining flexibility and process simplicity.

Inhance Technologies' new Reactive Gas Technology™ provides the highest performing barrier solution of monolayer polyethylene in a safe, economic way, giving you quality assurance and design flexibility.

For over 30 years, our technology has been instrumental in assisting plastic fuel systems gain broad acceptability. Inhance Technologies was the first to enable monolayer polyethylene fuel systems to not only meet, but exceed emission standards set by the Environment Protection Agency (EPA) and California Air Regulations Board (CARB).

The Reactive Gas Technology™ can be applied to all forms of tank manufacturing processes from blow molding, rotational molding, injection molding to thermoforming. The process treats both the inside and outside surfaces, providing two layers of permeation protection compared to other technologies.

Fuel tanks treated using Reactive Gas Technology™ exhibit an order of magnitude lower permeation weight loss with CE10 fuel than the current EPA and CARB regulatory standards. This can help prevent product obsolescence when more stringent emission regulations are implemented.

### APPLICATIONS

#### Outdoor Power and Lawn Equipment

- Blowers
- Lawn Mowers
- Edgers
- Chainsaws
- Trimmers

#### Utility Vehicles

- All-Terrain (ATV)
- Side-by-Side (SxS)
- Snow Mobile

#### Marine Fuel Systems

- Outboard / Inboard
- Personal Water Craft

#### Automotive

#### Military

#### Agricultural Equipment

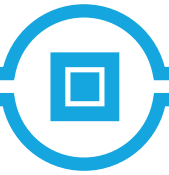
#### Construction Equipment

#### Portable Fuel Containers

#### Fuel System Components

- Grommets
- Gaskets
- Bladders
- Fuel Cap Seals
- Piping Systems





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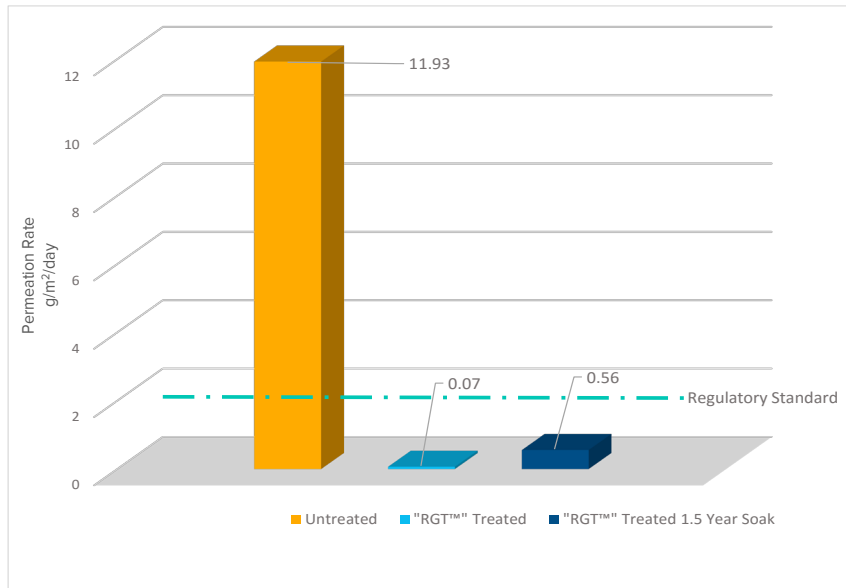
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## BENEFITS

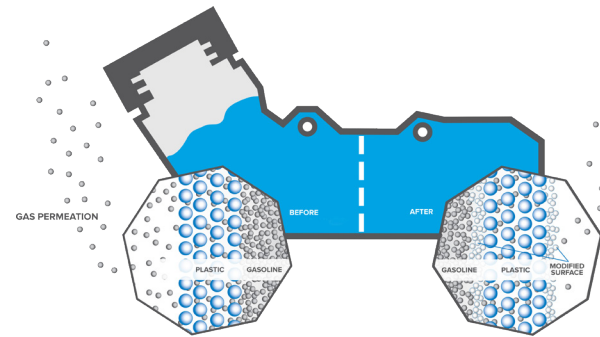
- Enable monolayer structures to exceed regulations for portable fuel containers and fuel tanks including EPA and CARB standards
- Safe process to add barrier properties that protect people and the environment from harmful VOC exposure
- No risks of delamination or composition inconsistencies found in multilayer and lamellar tank constructions
- Enable endless design options as Reactive Gas Technology™ doesn't rely on polymer thickness
- Simple, cost effective process vs. more complicated coextrusion and lamellar structures
- Monolayer construction provides the best impact performance
- In-field, in-use, non-destructive compliance verification of barrier
- Surface treatment permits recyclability

## PERMEATION DURABILITY DATA

The chart below shows permeation weight loss data of Reactive Gas Technology™ barrier treatment for monolayer high density polyethylene fuel tanks.



\*EPA Regulatory Standard: 1.5 g/m²/day per EPA 40 CFR Part 1060.103



*Fuel molecules can easily permeate the container walls of polyethylene vessels. This will cause loss of product and harmful exposure to VOC's.*

*The Reactive Gas Technology™ seals the entire container, inside and out creating a double-sided barrier to resist permeation.*



*Inhance Technologies solutions' can be applied in a number of industries to improve product performance and sustainability*