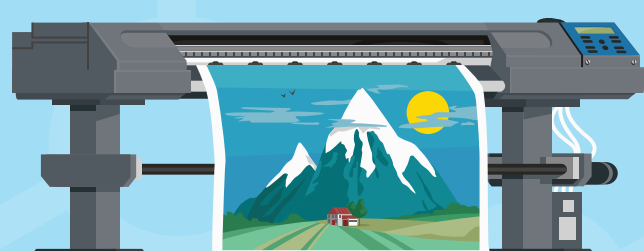
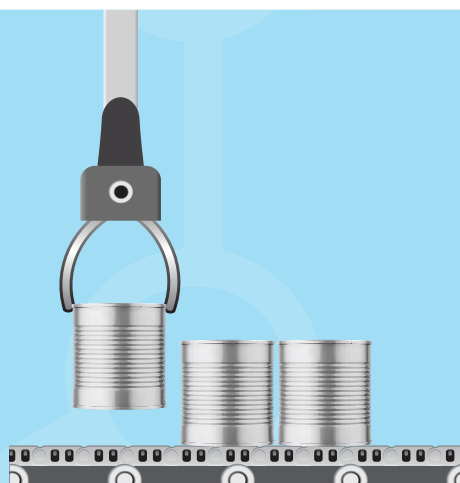


## The History of PTFE

In 1938, polytetrafluorethylene (PTFE) was discovered—by accident. Since then, it has been used in a wide range of applications for its exceptional chemical and temperature resistance, low coefficient friction, and enhanced surface durability.



Rub & Abrasion Resistance



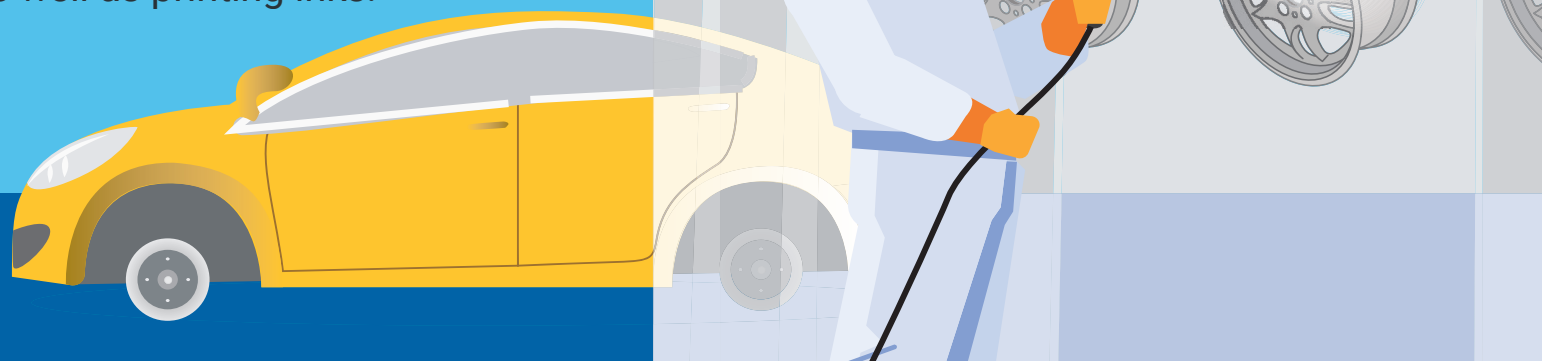
Improved Slip

## PTFE for Coatings

PTFE delivers scratch, rub, abrasion resistance, temperature resistance, and very low co-efficient of friction, which are commonly desired properties for diverse types of coatings. These benefits can be difficult to achieve from other sources.

## Common Coatings Applications

PTFE is used in can, coil, powder, wood, and architectural coatings, as well as printing inks.

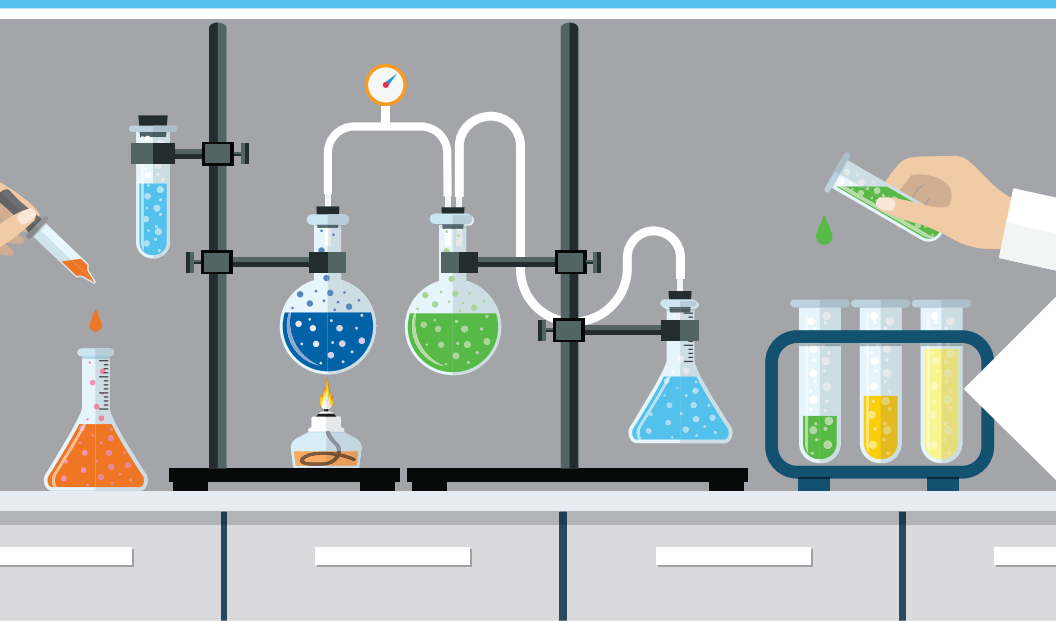


## Traditional PTFE Manufacturing

Making low molecular weight PTFE, the type used for coatings, requires an irradiation process that generates PFAS [e.g. perfluoro octanoic acid (PFOA) and perfluoro-octane sulfonic acid (PFOS)].

## PFAS Now Questioned in the Market

Many PFAS are toxic with no proven environmental degradation and are suspected carcinogens.



## The Future of PTFE in Coatings

As new regulations restrict raw materials containing >25 ppb of PFOA, coating and ink formulators are exploring compliant solutions, without sacrificing performance.

## New Opportunities For Formulators

Lubrizol now offers PTFE-free wax additive alternatives that deliver similar properties to PTFE-containing additives.



## The Lubrizol Impact

Lubrizol put coatings and inks with PTFE-free technology to the test. The results? PTFE-free wax additives not only improved gloss retention, but reduced coefficient of friction and surface durability. This proves they can serve as an alternative to PTFE-containing products without compromising performance.

