



# Performance Polymers Philosophy





## Company Introduction

Performance Polymers is a specialist company developing high performance inorganic technologies currently in the form of protective coatings or liquid applied insulation primarily for industrial, construction and infrastructure market sectors.

Our strong knowledge on inorganic silicon based polymer chemistries allows us to introduce high performance coating systems to prevent corrosion, UV degradation & energy consumption via utilization of inorganic material technology. This Inorganic Innovation emphasis allows us to push current boundaries and extend turnaround cycles & asset lifetimes.

## Chemical History

In these days of conflict with energy resources and environmental imbalances it is good to be involved with a science that addresses both sides of this divide simultaneously, this is the world of inorganic siloxane polymer technology.

Essentially derived from sand, as opposed to fossil fuel reserves, siloxane technology is increasingly becoming adapted to replace earlier 20th century technology of organic plastics and polymers, indeed in many cases surpassing performance properties and enabling increased durability.

Silicon polymers or siloxanes are formed by combining silicon and oxygen (SiO<sub>n</sub>) to form polymeric structures that can emulate and indeed even surpass existing organic materials in many different forms, imagine just how many common materials are derived from crude oil resources.



## Technology Advancements

Beyond the ordinary to the extraordinary, silicon-based products, provide an advantage in nearly every industry segment of today's economy. The unique properties of inorganic polymer chemistry allow for easily tailored materials that provide routine features such as high temperature stability, resistance to ageing (UV) and chemical assault.

Ever-growing environmental issues such as non-renewable resource usage & energy efficiency, which are increasingly becoming essential to product selection, can be greatly reduced and improved. Furthermore, these materials exhibit extended durability significantly improving whole life cycle costings for the protection of structures and other assets.



## Primary Focus

Performance Polymers has been formed to forward the exploitation of inorganic silicon based polymers. By specializing our research into inorganic material technology, we fully dedicate time & knowledge growth to outcome product performance via utilization of siloxanes polymers and associated materials.

Through forming strategic alliances, we are able to advance developing the next generation of products including polysiloxane based coatings for high temperature applications, photo stable (UV resistant) and advances using inorganic insulation technologies.

The Thermaguard™, SafeTouch™ and IPS range of innovative coatings are one example of how inorganic polymer chemistry is able to push forward the boundaries of existing coating technology.

