

And why is **PPS** different from all the paint sealants on the market?

It has endurance when none of the others do!

**PPS** Polishing uses *different* technology.

This technology called electrophoresis dynamics is the chemical application of the “bar magnet” principle that opposite poles attract. In the practical application the wash solution (polarizer) opens the pores of the paint and puts a positive charge on the paint. The anionic PTFE resins are negatively charged, so by the above dynamics it is pulled into the pores of the paint. Only PTFE formulated in an anionic aqueous solution can seal paint, others will have no effect.

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## **The History of Waxes**

The use of silicones as used in certain types of liquid polishes are much more durable than wax base polishes. The solar convection heat will melt the wax that lays on the painted surfaces. Because waxes are hard and viscous, they plate over the surface and do not penetrate into the pores. Waxes have very little resistance to detergents and are easily washed off with each car wash. When left out in the sun, the exposed surfaces quickly heat up. The waxes melt and while in a molten state, dust, industrial fallout, exhaust fumes and any other pollutants floating in the air are absorbed into the molten wax. The end result is that the paint is washed more often which will then expose the surface too much more destructive elements: ultraviolet and infrared rays, photolysis, acid rains, etc.

The best-known waxes (carnuba) widely used over beeswax are no match for the degradation of the natural elements and man-made pollutants. Waxes must be constantly applied to maintain a good protection.

Silicones were first introduced in a liquid polish for autos, planes and boats in the mid 1950's. They were easy to apply, had a greater depth of shine and endured many times longer than waxes. Silicones had a lot going for them, but like all things, they had drawbacks that created nightmares for the paint shops.

Silicones “crosslink” and “drift” onto the painted surfaces and penetrate into the pores. It is this penetration that has given paint shops so much trouble. Every time the surface is washed, it will drive the silicone deeper into the paint. It will continue to “drift” down into the prior coats and eventually into the body metal.

As the silicones penetrate or drift further into the painted surfaces, they leave the surface exposed to elements just as waxes do when they melt or are washed off with a detergent. Depending upon the season, waxes will endure in the summer months for about 5 to 8 weeks whereas silicones will hold the protection for approximately 6 to 12 months, depending upon the quality of the silicones and how they are formulated. Their demise eventually comes from their ability to drift. They will drift all the way to the metal.

Once silicones have permeated the paint, the primer and the metal, a painter cannot get his paint to properly adhere. The silicones make the new paint “foam” which causes minute pockets of air in the newly applied paint. This is called “entrapment.” As the paint is curing and the solvents are flashing off, the tiny pockets of air will slowly work their way to the surface and create what is called a “pin hole.” Sometimes these entrapped air pockets cannot reach the surface before the surface has cured, and they become entrapped. Hence. Three months later, the vehicle is left out in the sun and bingo! The air bubble expands from the heat; the paint softens, and out comes the entrapped air...creating more pinholes.

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## The Solution

**PPS** has developed a polish system that uses high quality, durable acrylic elements.

In layman’s language, the formulae is very expensive, high quality and a superbly engineered product. Each ingredient has its own function and enhances each other in the overall finished product.

The conglomerate is designed to:

Fill the pores with a unique PTFE resin (plasti-cizer). This will form a barrier that will prevent penetration of any other elements.

The dimethoxysilyldimethylaminoethylaminopropyl polymer and methyltrimethoxysilanes allow the total formula to plate, bond and crosslink. This product gives the depth of shine, durability, corrosion protection, spot resistance and excellent detergent resistance.

Phenylpropylsilsequioxanes is the protector of all the others already in place. It is an acrylic which when fully cured, is a hard durable, anti-static, transparent, protective layer and gloss enhancer.

To allow all this to happen a special patented surface preparation is part of the system. In the preparation solution a “cations” (positive) surfactant is used to purge the pores of the surfaces to be treated, and magnetically charge the surface in a positive polarity. The pores are cleansed and charged and are ready to receive the unique “anionic” or negatively charged molecules of polytetrafluoroethylene (PTFE). They are pulled into the pores magnetically and held there while all of the protective chemicals have crosslinked. bonded and cured, locking the ptfе resins into the paint and preventing drifting, fading and degradation of the paint to years to come. Solar heat will expand the teflon molecules to give even further protection.

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The above is a very technical explanation, but in simple terms, waxes do not protect the vehicles finish nor do silicones. The **PPS** patented process is the only system that has been engineered to solve all of the problems and preserve the painted surface for many years to come.

Note: PTFE resins formulated with (neutral) non-ionic aqueous solutions will not seal the pores of the paint.