



Keramik X

Hydrophobicity and Durability
Explained

What does a Lotus leaf have to do with keeping your car clean?

Scientific American has considered the lotus leaf in nature as having a surface that always seems clean regardless of environment and contaminants. While some plant surfaces require a thorough soaking to clean them, the lotus leaf is incredibly clean after just a light rain. As a light rain hits the lotus leaf, the dirt and contaminants are seemingly attracted to the water droplets while the water droplets themselves (after collecting the dirt and contaminants) effortlessly roll off the lotus leaf taking the dirt and contaminants with them.

As is often the case, nature provides a great precursor to modern technology. Enter autobahn™ Ceramic Coating Technologies. Like the properties designed into the lotus leaf, autobahn™ Ceramic Coating Technologies attract the dirt and contaminants from surfaces and with a light rain (or brushless carwash) easily carry them away without harsh brushes or scrubbing.

The property of the lotus leaf and autobahn™ Ceramic Coating Technologies is called “hydrophobicity” and can be measured carefully and presented objectively using a property called “contact angle”. By definition a substance with a contact angle greater than 90 degrees is considered “hydrophobic”.

The images below illustrate the hydrophobicity of autobahn™ Keramik X compared to the leading ceramic coating.



Figure 1 - "Leading Ceramic Coating" after 50 washes

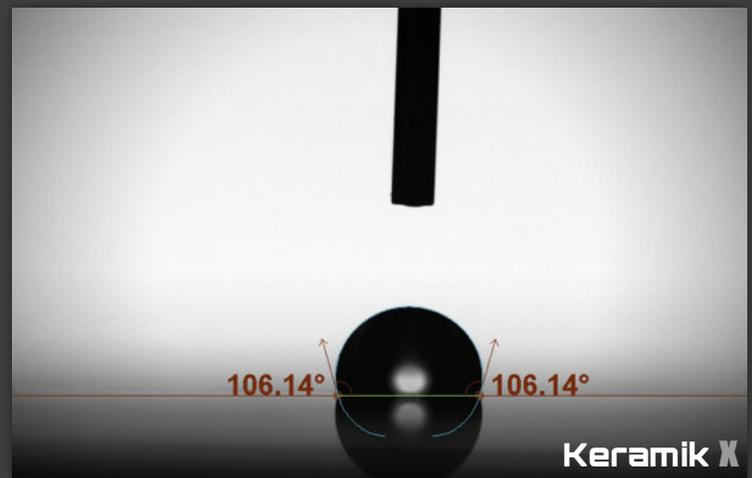


Figure 2 - Keramik X after 50 washes

What these data illustrate is the self-cleaning, hydrophobic nature of autobahn™ Keramik X after 50 washes is superior even to the leading ceramic coating.

Continuing on, how does autobahn™ Keramik X perform over time versus the leading ceramic coating? For this the reader is invited to consider a side-by-side comparison after hundreds of cycles of rubbing the surface with a solution of soap and water simulating time and car washes. Calibrations conclude that ten (10) cycles approximate one (1) typical car wash.

The graph below illustrates that throughout the period of 1,500 cycles approximating 150 car washes (over 6 years for a car washed twice per month), autobahn™ Keramik X outperformed the leading ceramic coating.

