DuraSlic® VEHICLE PROTECTION

www.duraslic.com

DuraSlic® XtremeHG Ceramic Coating

INTRODUCTION

***DuraSlic* XtremeHG** is the most advanced ceramic coating in the industry. HG is the next generation of the world's best performing coating, with an added **outer wear layer** that imparts a high degree of slipperiness. By chemically modifying the ceramic backbone with DuraSlic's *SuperSlic Technology*, a new level of protection and ease of cleaning has been achieved. Xtreme HG is the first ceramic coating to combine high levels of hydrophobicity, oleophobicity and slipperiness. It is the Holy Grail of ceramic coatings.

XtremeHG is a 1-step ceramic coating, that can be applied to painted, coated and base metal surfaces, glass and plastics. It imparts an unprecedented level of protection from water, chemicals, UV and corrosion. It is specially formulated to provide long open time and utilizes DuraSlic's new **Haze Flash** technology. It revolutionizes the coating application process to make it easier to see the coating flash and achieve a straightforward, highly efficient application process.

ATTRIBUTES

- Outstanding Hydrophobicity and Oleophobicity and slickness
- Excellent Water Beading and Sheeting
- 5-Year Protection
- "Easy-to-Clean" and repels most materials including salt, mag chloride, bird droppings, tar and dirt
- Molecular bond to painted or metallic surfaces
- Easy to apply
- High film hardness
- Clear, Glossy finish
- Environmentally Friendly Formula

TECHNOLOGY

Xtreme HG is truly a breakthrough in ceramic coating technology. It is the first hand-applied ceramic coating for the detailing market that achieves high hydrophobicity, oleophobicity and slickness for the lifetime of the coating. As the solvents dry, the coating begins to cross-link, forming a chemical bond to the substrate. Further evaporation forms a hydrophobic, oleophobic and slippery wear layer on the contact surface. HG has a robust abrasion resistant surface that stands up to repeated washing as shown in the attached data.

PRE-CLEAN

The paint or metal surface should be completely clean of foreign materials. Painted surfaces should be cleaned to the level required for a superior paint application. If new, and not exposed to exterior conditions, clean with a no-residue detergent, rinse, dry and then wipe with DuraSlic

Panel Prep and Glass Wipe. If the surface has been exposed to exterior conditions, further treatment may be necessary before these same steps. Metal surfaces will require the same cleaning steps.

APPLICATION

Application performance is highly based on temperature and humidity. Ideal conditions for application are 70-80^{o}F (21-27 ^{o}C) and 40-60% relative humidity. Do not apply in direct sunlight or high wind conditions. This will cause solvents to evaporate unevenly. It is recommended to apply indoors in a controlled environment.

It is normal for HG to separate over time, so always shake the bottle lightly prior to application.

Test-spot your first application in a small, inconspicuous area.

Using the supplied DuraSlic applicator, apply several drops of XtremeHG to applicator.

Install XtremeHG onto the surface of approximately 2'X2' area using a crosshatch pattern. (try to lay product down as even as possible.

Xtreme HG will have an open time between 1 ½-4 minutes before it will need to be removed.

After 1½-4 minutes, the coating will take on a hazy appearance. This is normal for HG. The coating will not "rainbow". After the haze appears, use a clean, soft microfiber towel to wipe away the residue. Use another clean microfiber to polish and level the coating.

See separate DS XtremeHG application instructions for more detailed information.

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CURING

XtremeHG will dry to tack free in 20-30 minutes. Do not disturb the coating or re-coat during this time. The coating begins to cure as soon as solvents begin to evaporate. The coating will reach 7H hardness after 18 hours and will fully cure to 10H hardness in 3 days at room temperate. Rain-ready in 24 hours.

TEST RESULTS

Physical Properties	Values
Appearance	Clear High Gloss
Specific Gravity @ 23°C	1.02 g/cm^3
Viscosity @ 23°C	3-5 cP
Nonvolatile content	10%
Static contact angle, water, ASTM D7490	102°
Static contact angle, n-hexadecane	63°
Dry Time	20-30 minutes tack free
Film Thickness	150-200 nm
Pencil Hardness (Mitsubishi)	10H*
Sliding Angle** (degrees)	24.1

ENVIRONMENTAL

DuraSlic coating solvents are not classified as VOCs and have been determined not to add to global warming. They use no Perfluorooctanoic acid (PFOA), a substance currently being investigated by the EPA. DuraSlic coatings are ECNA, REACH, RoHS and RoHS II compliant.

*Bulk polymer properties

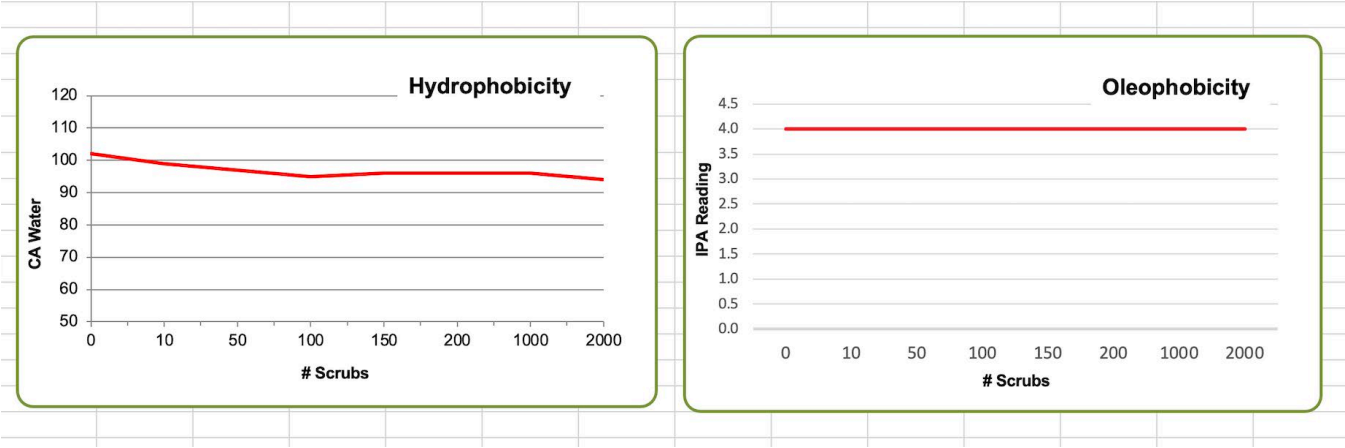
**DuraSlic International Test, details available upon request.

ADDITIONAL TEST DATA

Property	Test/Specification	Result
Contact Angle, water	ASTM D7490	102°
Contact Angle, n-hexadecane	ASTM D7490	63°
Pencil Hardness	ASTM D3363	9H* 10H (Mitsubishi Scale)
Roll-Off Angle	Clear Coat Substrate	24.1°
Adhesion, Cross Hatch	ASTM D3359	5B (no loss)
UV Resistance	QUV, ASTM G154 16, 500 hours	Pass
Salt Fog Resistance	ASTM B117-18, 500 hours	Pass

Refractive Index		1.4
Water Vapor Permeability		0.02 g/100 sq. in./day
pH Resistance	pH 2-12, 4 hours @ 72°F/23°C	No Change
Solvent Resistance	All Common Solvents 24 hours/72°F/23°C	No attack
Flexibility	Mandrel Bend, ASTM D522-17, Method A	Pass, (No loss, cracking)
Electrical Resistivity	IPC-CC-830	6.9 X10^6 Megohms [1]
Dielectric Constant (Volts/Mil)	IPC-CC-830	12,000 Volts/mil [1]
Film Thickness		150-200 nm/layer

[1] *Measured in bulk*



Note: Tested according to ASTM method D2486. Contact angle and IPA reading measured at start and after each interval of scrubs with automotive detergent.

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