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c1 Crystal Lacquer by G|techniq

Introduction

G|techniq's advanced nano-active coating cures to form a strong, sub-micron, non-porous, optically clear protective film with fine surface rheology.

When applied to modern automotive, marine or aviation polymer in aqueous-base paints, it becomes the new, functional surface layer of the paint itself, offering exceptional gloss and long term protection.

Low VOC formulation delivers an environmentally friendly product suitable for application in diverse real-world situations without access to controlled environments.

Cured film

Nano-active bodywork coating is a humidity-curing formulation, attaining a rapid cure in normal atmospheric conditions, and without the aid of special curing mechanisms, tools, or controlled environments.

Approx 70% of the curing cycle occurs within 2-10 minutes (depending on prevalent humidity conditions – the higher the ambient temperature and humidity, the faster the cure rate) of initial application, with 100% cure occurring within 3 hours.

It is engineered to bond permanently with modern PU and acrylic automotive paints via the hydroxyl (OH) group, as well as with other commonly used substrates such as PE gel coats, and can also bond to some metallic, enamel, ceramic and vitreous surfaces.

Example: PU automotive paints

1. initial reaction

nano-active	**+ humidity**		**transition compounds**
Si5O4(OC2H5)12	+ 12 H2O	=>	Si5O4(OH)12 + 12C2H5OH

2. secondary reaction

primary transition		**quartz + water**
Si5O4(OH)12	=>	5SiO2 + 6H2O nano-quartz polymer lattice Si-O-(R)

Characteristics

Stain Resistance

The resultant cured film is highly resistant to many common water and air borne pollutants, and even to sticky contaminants such as tree sap and insect impacts, due to it's ultra-fine surface topology.

Self-cleaning

When saturated with water, eg rain or clean water, coated surfaces exhibit self-cleaning properties: as water begins to bead during the flush-off phase, contaminants present on the surface tend to get rinsed off with the water.

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Sunlight exposure

Cured films are extremely transparent and colourless, and therefore yellowing of the film over time is extremely unlikely.
>98% visible light transmission

Durability and abrasion resistance

The quartz nano-structure that's embedded in the cured film's lattice produces a tough, hard finish that exhibits better abrasion resistance than any traditional polish, wax, silicone or other polymer-based product.