# NANOGLUE®

ADHESIVE PRIMER LAYER FOR TOP COATINGS

NanoGlue<sup>®</sup> is an adhesive primer coating that dramatically increases the durability of top coatings on glass. This proprietary technology works with thin film glass coatings such as silane, urethane and epoxy monolayers. The material is easily applied using wet based coatings and dries within seconds at room temperature.

## TECHNOLOGY

NanoGlue is unique because it has a cross-linking structure that is more extensive that any other previous material. This structure works as a chemical bonding layer between the glass surface and the top coat. The result is an unprecedented degree of durability that allows coatings to last multiple years even when subjected to harsh environmental conditions and

abrasion. NanoGlue<sup>®</sup> is formulated to work with our RepelShell<sup>®</sup> hydrophobic coating as well as other top coats solutions.

TECHNICAL SPECIFICATIONS

#### Chemistry

Chemical Family: Organosilane

Room Temperature State: Liquid

Storage Recommendations: Amber Glass Bottle,  $10^{\circ}\,C-45^{\circ}\,C$ 

Shelf Life: 1 year at neutral pH (storage), Shelf Life: 1 week at pH 2 (application)

Product Description: NanoGlue applied via wet based coating system

#### Material Characteristics

Thickness: 10-20 nanometers

Based in Ethanol

Fluorine Free

Enhancement in Rotary Taber Abrasion \*\*: 3x more durable over existing TEOS primer systems Enhancement in Chemical Resistance (pH14): \*\*5x more durable over existing TEOS primer systems Enhancement in UV stability (3000 hours): \*\*5x more durable over existing TEOS primer systems Enhancement in Salt Spray (1000 hours): \*\*2x more durable over existing TEOS primer systems Transparency: ≥ 93%(\*on Gorilla Glass)

### Appliance

Wipe on, spray on or dip application Room temperature cure for 1 minutes

#### Handling

Chemical Stable at normal temperature and storage conditions

Avoid: Heat, flames and sparks

\*\* Enhancement comparison was done by coating glass with NanoGlue and a fluorosilane against glass coated with a TEOS primer and the same fluorosilane. Durability measured in test compares the drop in water contact angle before and after test.

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