

# NG 1314 /D Coating

Ultra-thin, scratch resistant water and dirt repellent glass coating  
For maximum protection and performance of external glass surfaces

## DESCRIPTION

**NG 1314/D** is the first coating of its kind that combines a scratch resistance, hydrophobic “Easy to Clean” protection with an efficient, dust accumulation reducing function.

The inorganic bonding system offers a natural UV resistance, and a hardness of up to 7 on the MOHS hardness scale.

The product is formulated in a way that enables it to penetrate into the porous surface structure of the glass. Unlike traditional glass coatings that cover the surface structure of the glass, creating a thin layer of non-stick chemicals, the Nanovations glass treatment follows the contours of the glass surface right down to the nanometre level. To do so, it uses a self-assembling process where molecules form a solid inorganic material of specific size and position.

The application can be done with simple methods like spray and wipe on, or with application machines like roller coater or special spray coating machines.

After the curing, which is the evaporation of the carrier liquid, the material bonds to the surface and forms a inorganic nanometer thin layer that is enormously durable, and UV resistant.

The colloidal sols are scientifically designed to improve the dirt and water repellent properties and wear resistance of exposed glass. The coating reduces dry dust adhesion and helps to significantly improve cleaning speed and the cleaning outcome, even if the glass is exposed to large amounts of soiling, sand dust and pollution.

A heat curing or infra red curing step following the application can provide faster curing if required. Please contact Nanovations for details if this is required.

## RECOMMENDED FOR

**NG 1314/D** is recommended for:

- Heavy duty glass protection
- Solar Panels
- Solar collector mirrors
- Industrial applications

## FEATURES & BENEFITS

- Economical and long lasting
- Excellent protection for new and old surfaces.
- Water, dust and dirt repellent
- Hard coating
- Excellent abrasion resistance
- Nano-scale thin < 100 Nm
- Easy to clean / self cleaning effect

## SPECIFICATIONS

Supply form	Liquid
Colour	clear
Density	Approx. 0.79
Solvents	< Alcohol; denatured
Flashpoint	16°C
Storage temperature	4 to 35 °C / 39 to 86°F
Application temperature	4 to 35 °C / 39 to 86°F

## SURFACE PREPARATION

The substrate must be completely clean and dry before the application.

Proper surface preparation insures maximum performance and durability Surfaces must be dry and free from dirt, grit, dust, grease etc.

Use CL-50 cleaner or a Nanovations approved cleaner.

CL 40 should be used on contaminated glass.

Contaminations like wax and Silicone must be removed.

Applications on ARC SiO<sub>2</sub> based coatings in controlled environments and factories can be done direct without further preparation. We recommend contacting our technical department.

Use a water droplet test to evaluate surface is free of contaminates prior the coating. Clean glass is hydrophilic, which means water droplets are flat. If a glass washing machine is used , test the result with the same method.

## MANUAL APPLICATION

Ensure the surface is free of any previous residue of the cleaner. For manual application, do not use the same cloth as used for cleaning. Use a dry soft and clean cotton cloth or polishing towels.

The manual application takes place in a spray and wipes application. Apply a small amount and polish in the wet treatment in a circular overlapping polishing motion, treating section by section. Spray the next area and repeat the process.

Ensure the whole surface gets treated evenly and in a consistent method.

Alternatively, the treatment can be sprayed onto the towel or cloth and polished into the glass in the same manner. Treat only small sections at a time and ensure all the glass surface is treated evenly.

Check the treated area for any streaks, residue or product splashes and wipe them off.

The glass should be crystal clear when finished.

For machine application, please contact Nanovations.

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## CURING

**NG 1314/D** is water-resistant 10 - 15 minutes after the application. The optimum repellent effect takes up to 24 hours to be completed depending on the temperature of the substrate. The full surface hardness takes up to 48 hours to appear. The glass can be stacked and transported immediately after the coating application.

## CONSUMPTION

Consumption is between 2,5 ml and 4 ml a square metre depending on the type conditions of the substrates and the age of the glass.

250 - 400 square meter per litre (1000 – 4000 square foot)  
Up to 400 m<sup>2</sup> on new glass. Consumption rates are guidelines only.

Layer thickness < 100 Nm

## TOOLS FOR MANUAL APPLICATION

Professional window cleaning tools for the surface preparation. Suitable application cloth and micro fiber towels and spray bottles and spray devices.

## PACKAGING

250 ml , 1litre / 20 liter drums , 1000 L , IBC

## STORAGE

NG 1314 can be stored in the original sealed packaging for at least 36 months. Storage conditions should be dry and cool.

Detailed storage and handling and additional information, can be found in the Material Safety Data Sheet.

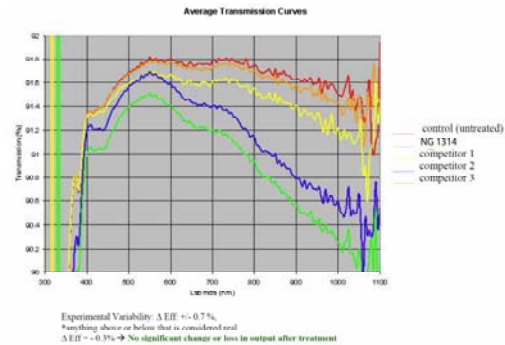
## PRECAUTIONS

READ ALL SAFETY DIRECTIONS AND WARNINGS ON PACKAGING BEFORE USE. REFER TO MATERIAL SAFETY DATA SHEET FOR HANDLING PROCEDURES.

**NG 1314 - D** contains alcohol. Provide adequate ventilation if applying in a confined area. Spray tools should be cleaned with IPA alcohol.

Please read the MSDS

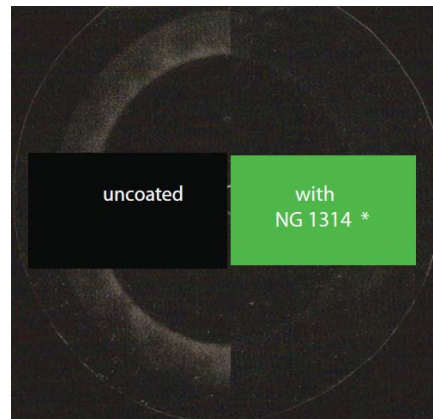
## PRODUCT PERFORMANCE DATA: LIGHT TRANSMISSION



**NG 1314/D** has undergone independent testing with solar panel manufactures to ensure light transmission through the treated glass is not affected. The coating is invisible, treated glass is almost as transparent to the spectrum of the light as completely untreated glass.

## ABRASION RESISTANCE

BS EN ISO 11998 is a method for simulating the ability of coatings to withstand wear caused by repeated cleaning operations or general wear and tear. The coating is able to protect the glass substrate from scratches as seen below.



The information, and, in particular, the recommendations relating to the application and end-use of the products, are given in good faith based on current knowledge and experience of the products when properly stored, handled and applied under normal conditions. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users should always refer to the most recent issue of the Technical Data Sheet for the product concerned, copies of which will be supplied on request.

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