

# SURFEX 100™

## Rain Repellent Coating

GKN Aerospace Transparency Systems, a world leading producer of aircraft and specialty transparencies offers our proprietary Surfex 100™ rain repellent coating for use on windows with external facing glass surfaces.

Airlines and OEM requests, prompted the development of this distinct product. Surfex 100™ offers a simple, cost effective, rain shedding system to replace RainBoe™, which is being phased out because of its CFC content. Commercially available Methylsilicone products exhibit very short life and alternate systems developed by other transparency manufacturers have proven expensive and time consuming to reapply.

Glass surfaces, unlike acrylic and other plastics, do not exhibit good rain-shedding properties. Surfex 100™ offers the following:

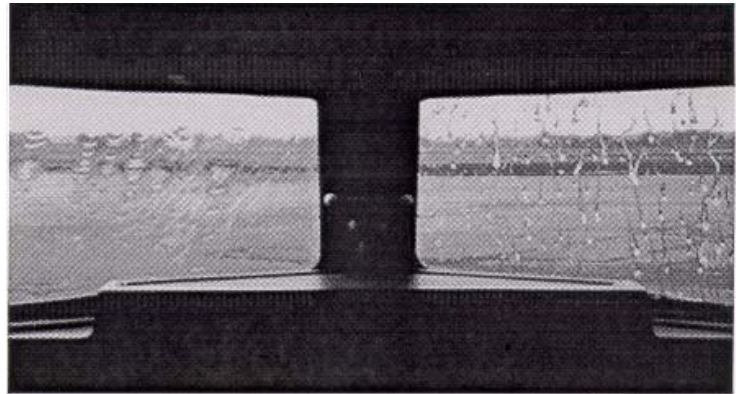


Photo Courtesy of Aero International (Regional)

The window on the left is an uncoated window. On the right, is a window coated with Surfex 100™ Rain Repellant coating. The difference is clear.

- ◆ Dramatically improves visibility through a window during rain, by causing water droplets to bead up and run off the glass rather than forming a sheet of water which distorts vision.
- ◆ Reduces the need for windshield wiper use
- ◆ Results in savings from reduced maintenance on the wiper system.

The extent to which a surface repels water can be measured by the contact angle that a bead of water displays when resting on the surface. A contact angle in excess of 60° is usually taken to demonstrate acceptable rain-shedding for most applications.

### FLIGHT TRIAL DATA

| Hours | Cycles | Contact Angle Average° | Standard Deviation | A/C | Product     | Applied | Initial Contact Angle° | Data Source          |
|-------|--------|------------------------|--------------------|-----|-------------|---------|------------------------|----------------------|
| 3601  | 463    | 83                     | 29                 | 747 | Surfex 100™ | field   | >100                   | Airline Flight Trial |
| 3601  | 463    | 77                     | 36                 | 747 | Brand A     | field   | >100                   | Airline Flight Trial |
| 1886  | 2480   | 73                     | 13                 | 737 | Surfex 100™ | field   | >100                   | Airline Flight Trial |
| 1886  | 2480   | 65                     | 16                 | 737 | Brand A     | field   | >100                   | Airline Flight Trial |
| 1200  | n/a    | 60                     | n/a                | 777 | Brand A     | n/a     | 100                    | OEM E&M Conference   |
| 2400  | n/a    | 60                     | n/a                | 747 | Brand A     | n/a     | 100                    | OEM E&M Conference   |

## REAPPLICATION

Surfex 100™ has been designed to be easy to reapply. In brief, the steps are:

- ◆ Remove grease and loose dirt from the window
- ◆ Polish the glass surface, using an orbital sander
- ◆ Apply a surface activation solution
- ◆ Apply Surfex 100™
- ◆ Buff using a dry cloth

The whole process can be completed in 45-60 minutes, depending on window size.

## AVAILABILITY

Surfex 100™ is available as a factory applied coating for all glass faced windows manufactured or repaired by GKN Aerospace Transparency Systems. Reapplication master kits and replenishment kits containing all the necessary materials and instructions to apply Surfex 100™ are available.

### **Part Number 7137**

The initial master kit. This is housed in a sturdy reusable box contains sufficient material to coat a minimum of six windows dependent on size

### **Part Number 7759**

A Re-Order Kit containing sufficient material to coat at least six windows dependent on size.

### **Part Number 7128**

Surfex 100™ Vial Pack (6 vials)

The Master Kit contains:

#### **Part Number:**

7125  
7124  
7731  
7122  
7126  
7128  
7129  
7130  
7365  
7132  
7134  
7135  
7674  
7620

#### **Description:**

No. 1 Isopropanol (propan-2-ol)\*  
No. 2 Polishing Slurry\*  
No. 3 De-ionized Water\*  
No. 4 Surface - Activation Concentrate\*  
No. 5 Buffing Solvent  
Single Windshield Application Kit, 6 each\*  
Gloves, 20 pairs\*  
Disposable Bags, 20 each\*  
Reel of Tape\*  
Paper Wipes, 2 boxes\*  
Instruction Manual  
Safety Glasses, 2 each\*  
Spray Nozzles, 2 each\*  
Windshield Label, 1 roll\*

Carrying/Storage Case - meets IATA Dangerous Goods regulations 37th Edition (1/1/96)

*\* Included in Re-Order Kit*

## OTHER

Surfex 100™ has been extensively tested for its resistance to common chemicals and cleaning agents. It has been exposed to steam, humidity, UV light, and high temperature. It is strongly recommended that Surfex 100™ not be exposed to RainBoe™ or other fluorine containing solvents and cleaners, since the life of the coating will be considerably shortened. Surfex 100™ does not crack, craze, peel or become cloudy or hazy with age. Please contact us at the numbers below for further information.



12122 Western Ave.  
Garden Grove, CA 92841  
Tel.: 714.893.7531  
Fax: 714.892.7635  
SITA SNAPAXD

Eckersall Road, Kings Norton  
Birmingham, B38 8SR England  
Tel.: 44.121.606.4100  
Fax: 44.121.606.4191  
ARINC: BHPXZXD

9/21 Moo 5, Phaholyothin Road  
Klong 1, Klong Luang,  
Patumthanee, Thailand 12120  
Tel.: 66.2.516.1058  
Fax: 66.2.902.0414

Avenida Central, 211 - Chácaras  
Reunidas, CEP 12238-430  
São José dos Campos, Brazil  
Tel.: 55.012.3934.3418  
Fax: 55.012.3931.9006

London Luton Airport  
Luton Bedfordshire  
LU2 9PQ, United Kingdom  
Tel.: +44 (0) 1582.731441  
Fax: + 44 (0) 1582.452049