# ORAGUARD® 293 **ULTRA FLEXIBLE CAST PVC LAMINATING FILM**

## **Description**

1-mil, flexible transparent premium cast PVC film with a UV extension factor of four years. Available in gloss finish.

### Release Liner

55# silicone-coated paper

### **Adhesive**

Clear, solvent-based, permanent adhesive

For the indoor and outdoor protection of large format digital prints. Because of its extra flexibility ORAGUARD® 293 is recommended for vehicle wrapping in combination with ORAJET® Series 3551, 3551RA, or ORALITE® Series 5600, 5650RA.

### **Technical Data**

| Thickness (without liner and adhesive)   | 1-mil  |
|--|--|
| Temperature Resistance   | Adhered to aluminum, -58°F to +230°F, no variation   |
| Fire Behavior (DIN 75200)<br>Fire Rating   | Adhered to steel, self-extinguishing ASTM E 84-07 Class "A"  |
| Adhesive Power (FINAT TM-1, after 24 h, average)   | Adhered to stainless steel: 2.74 lb/in   |
| Tensile Strength (DIN EN ISO 527)  | Along: Min. 19 MPa<br>Across: Min. 19 MPa  |
| Elongation at Break (DIN EN ISO 527)   | Along: Min. 120%<br>Across: Min. 120%  |
| Seawaterability (DIN 50 021)   | Adhered to aluminum, after 100h/73°F, no variation   |
| Shelf Life (68°F/50% relative humidity)  | 2 years  |
| Minimum Life Expectancy (based on accepted application procedures on vertical surfaces)  | 8 years  |
| Minimum Application Temperature  | 46°F   |
| Available Lengths Available Widths   | 150' (50-yard) and 75' (25-yard)<br>30", 36",50", 54", 60"   |
| Recommended to be used in combination with   | ORAJET® Series 3951*, 3951RA*, 3951HT*, 3850, 3751RA*, 3551, 3551RA, 3551DT, 3109, 3105HT and ORALITE® Series 5600, 5650RA |
| UV Protection Extension Factor   | +4 years   |
| For best results, utilize ORAFOL ICC profiles available at www.orafol.com and allow solvent-based inks to dry for at least 24 hours (48-72 |  |

hours preferred) at 70°F before cutting the graphic to the ink or applying a laminate.

### Note

Surfaces to which the material will be applied must be thoroughly cleaned from dust, grease or any contamination which could affect the adhesion of the material. Freshly lacquered or painted surfaces should be completely cured. The compatibility of selected lacquers and paints should be tested by the user, prior to application of the material. Films with structured surface are naturally more sensitive than the unstructured. Accordingly, these films are to be treated carefully both in processing and in cleaning. Impurities affect the appearance of structured films and require more frequent cleaning. Furthermore the application information published by ORAFOL is to be considered. The batch traceability according to ISO 9001 is possible on the basis of the roll number.

### **IMPORTANT NOTICE**

All ORAGUARD® products are subject to careful quality control throughout the manufacturing process and are warranted to be of merchantable quality and free from manufacturing defects. Published information concerning ORAGUARD® products is based upon research which the Company believes to be reliable although such information does not constitute a warranty. Because of the variety of uses of ORAGUARD® products and the continuing development of new applications, the purchaser should carefully consider the suitability and performance of the product for each intended use, and the purchaser shall assume all risks regarding such use. All specifications are subject to change without prior notice.

WARNING: This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.



<sup>\*</sup>Applications using 3951/3951RA/3951HT/3751RA laminated with 293 are recommended for highly experienced vehicle wrap installers ONLY.