

BETASEAL

UNI-WIPE SYSTEM

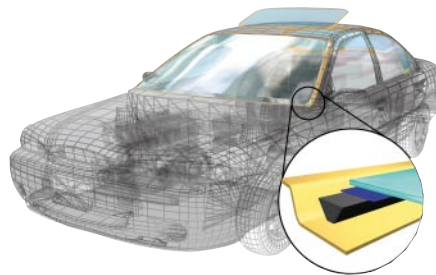


New BETASEAL Uni-wipe Glass Bonding System Eliminates Need for Blackout Primer in Glass Bonding Process

Dow Automotive is the only global supplier to combine an extensive plastics offering with bonding and sealing technologies. Our material science and characterization expertise, combined with design engineering, processing knowledge and program management, enable us to provide OEM and Tier customers with solutions for specialized applications.

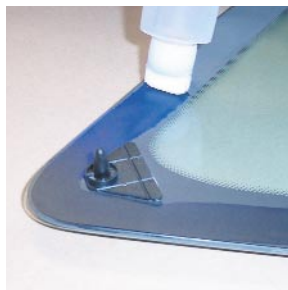
The BETASEAL* Uni-wipe system is one of a number of solutions that simplifies the glass bonding process, while maintaining the primerless-to-paint performance pioneered by Dow Automotive.

The BETASEAL Uni-wipe system features the convenience of a single clear wipe around the glass—with quick flash time—before application of a specially formulated adhesive. The adhesive is designed to bond, without the use of body flange primer, to a wide range of commercially available clearcoat technologies and is UV-resistant, thereby eliminating the need for glass blackout primer. BETASEAL glass bonding systems help vehicles meet globally mandated safety requirements for barrier and roof crush regulations. Materials are applied robotically or manually from standard or custom pumping equipment.



Applications

Windshields
Backlites
Quarter glass
Hardware bonding
Sunroof assemblies



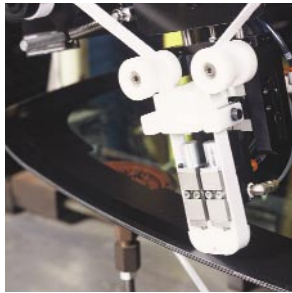
Detectable application using a specific light source.

Product advantages and ROI

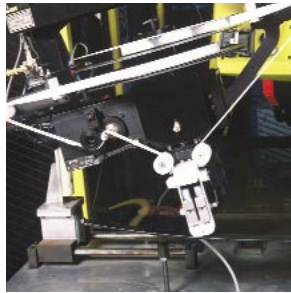
- ▶ BETASEAL Uni-wipe system lowers manufacturing cost and assembly time by eliminating production steps
- ▶ Fewer steps needed to prepare glass for bonding reduce the potential for possible defects
- ▶ Formulations provide a wide range of mechanical properties to suit all vehicle requirements
- ▶ Formulations are developed to be compatible with all vehicle production processes, including cold- and warm-applied systems
- ▶ Improves cycle time during assembly and reduces VOCs
- ▶ A unique fluorescing agent added to the clear wipe ensures that proper application is detectable during the glass installation process, providing quality assurance because a specific light source is used to indicate a continuous application around the glass

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Primer robotically applied using the Nordson Flow Through Felt priming system.



Adhesive robotically applied.

Case study

The Betaseal Uni-wipe system will allow a specific OEM plant to save over \$1 per vehicle by:

- ▶ Eliminating one operator per shift
- ▶ Reducing primer usage by 67%
- ▶ Reducing cleaning solvents by 80%
- ▶ Reducing hazardous waste by 85%
- ▶ Reducing equipment maintenance by 75%
- ▶ Reducing application materials by 75%
- ▶ Reducing VOCs by 53%
- ▶ Decreasing cycle time by up to 75%

Full-service support from a single-source supplier

In addition to the largest selection of material solutions, Dow Automotive offers the following services to meet your bonding needs.

- ▶ Application development, testing and engineering support
- ▶ Plant services support – on line or at your facilities
- ▶ Vertical integration by manufacturing most of our own raw materials to guarantee security of supply and low cost for our customers

Contact your customer service representative, or visit dowautomotive.com for more information. For technical information select "Downloads" on home page and "Technical Data Sheets" on the next page.

We listen. We deliver.



Dow Automotive

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