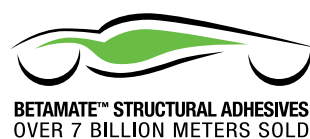




## OEM-Quality Products for Windscreen Replacement and Crash Body Repair



# EV-Ready™ Glass Adhesive Systems

## BETASEAL™ Auto Glass Adhesives deliver OEM technology and performance to the EV/HEV aftermarket

BETASEAL™ Adhesive Systems are trusted by automakers throughout the world to bond today's most advanced vehicles, including zero-emission electric vehicles (EVs) and hybrid autos and trucks (HEVs), as well as vehicles with Advanced Driver Assistance Systems (ADAS).

The same technologies used in BETASEAL™, and specified for OEMs, are "EV-Ready™" and are available today for aftermarket auto glass replacement and car body repair.

### New designs place more demands on aftermarket adhesives

EV, HEV and ADAS equipped vehicles place more demands on auto adhesives by employing more sophisticated auto glass and reducing vehicle body weight. DuPont has been, and will continue to be, a trusted partner in developing formulations that expeditiously meet challenges for both OEMs and the aftermarket.



### In ten years, one out of three cars will be an EV

Popularity for EVs and HEVs are growing at an exponential rate. According to recent analysis by Deloitte, EV sales will account for more than 31 million new cars sold in 2030. That means one out of every three new cars sold will be an EV.

## Customers judge a windscreen replacement by the quietness of the ride

EVs have a quieter ride by design. As sound emitting from the drive train is reduced, sensitivity to noise, vibration and harshness (NVH) will increase. Wind and road noise will become more noticeable and bothersome.

Urethane adhesives used to bond auto glass to the body of an EV vehicle can play an important role in improving acoustics and delivering an enjoyable ride.

This is especially significant in auto glass replacement where a high-modulus adhesive can be employed to reduce vibration and the subsequent noise the vibration produces. This helps meet manufacturer requirements and customer expectations.





## Cleaning and Priming

### BETACLEAN™ 3300 Glass Cleaner

Use for cleaning glass, ceramic materials, plastic-coated surfaces, PVC, PUR-RIM and the pretreatment of surfaces prior to the application of adhesive systems

- Promotes dirt, dust and grease cleanup
- Evaporates quickly to save time and ensure a dry, residue-free bonding surface
- Can be used to inspect glass quality before installation – highlights fingerprints and glass imperfections
- Available in four (4) convenient packages: handy 8 ml wet-dry wipes, 500 ml spray bottle and environmentally friendly 5 lt bottle and 25 lt containers for refilling spray bottles

Additional optional cleaning agents are available to support a safe and clean bonding process:



### BETACLEAN™ 3350 Surface Cleaner

Heptane for cleaning and degreasing glass, plastic and painted surfaces

- Available in 1000 ml bottle

### BETACLEAN™ 3500AF Polyurethane Cleaner

BETACLEAN™ 3500AF cleaner removes uncured polyurethane residues from paints and plastics

- Available in 1000 ml bottle

### BETACLEAN™ Easy-Go Cleaning Sponge

- Abrasive melamine sponge used in tandem with BETACLEAN™ 3300 spray cleaner to scrub bonding area
- Helps break through and remove common contaminants
- One-time use only
- Available in bulk – 224 sponges per box



### BETAPRIME™ 5504G All-in-One “No Shake” Primer

“No Shake” means one less worry, whether your installation is mobile or in the shop

- Optimizes installation process – elimination of shaking step makes process easier, safer, faster
- Fast flash-off (dry) time helps eliminates excessive waiting time following application
- One primer for all common aftermarket substrates: glass, nicks and scratches, paint, encapsulations (PUR, PVC, PAAS), metal and cut bead
- Reduces cost, optimizes inventory by eliminating redundant products
- Effective in treating larger bare metal areas – allows for corrosion treatment in the field
- Ideal for mobile installations
- Available in 125 ml bottle and 10 ml stick



## Glass Bonding and Sealing

### BETASEAL™ 1580

#### 30-minute safe drive-away adhesive for auto glass replacement

- Excellent link-up strength allows for 30-minute minimum drive-away time
- Increased productivity – can be applied directly to freshly trimmed, cut-back PU bead with no need for primer or activator
- High-modulus formula helps maintain structural integrity at original equipment levels
- Non-conductive formula – reduces interference with radio, mobile phone, GPS or additional driver aid technologies
- Available in 310 ml cartridge or 420 ml and 600 ml sausage



### BETASEAL™ 1527EP

#### 60-minute safe drive-away adhesive for auto glass replacement

- High-modulus formula helps maintain structural integrity at OE original equipment levels
- Non-conductive urethane reduces significantly interference with mobile devices
- No heating required for improved work efficiency
- Improved formula is easy to use with excellent decking and short cut-off string
- Available in 310 ml cartridge or 400 ml, 420 ml and 600 ml sausage



### BETASEAL™ 1590CT

#### 2-hour safe drive-away time for all glass weights

Provides very fast and effective installation support combined with comfortable working time

- Bonding and gap filling with one system – very long open time, even at warmer temperature conditions
- High UV resistance
- Primerless – can be applied directly to freshly trimmed, cut-back PU bead
- Provides excellent no-sag properties
- Non-conductive formula – reduces interference with radio, mobile phone, GPS or additional driver aid technologies
- Cold applied – no heating required for improved work efficiency
- Available in 600 ml sausage





### BETASEAL™ 1130

#### 2-hour safe drive-away adhesive for auto glass replacement

- High-modulus formula helps maintain structural integrity at OE original equipment levels
- Non-conductive urethane reduces significantly interference with mobile devices
- No heating required for improved work efficiency
- Compatible with existing aftermarket cleaners and primers
- Available in 310 ml cartridge or 400 ml and 600 ml sausage



### BETASEAL™ 1001EM

#### 3-hour safe drive-away adhesive for glass replacement

- High-modulus formula helps maintain structural integrity at OE original equipment levels
- Non-conductive urethane reduces significantly interference with mobile devices
- No heating required for improved work efficiency
- Compatible with existing aftermarket cleaners and primers
- Available in 310 ml cartridge or 400 ml and 600 ml sausage



### BETASEAL™ 1125-1F

#### Value-priced adhesive for glass replacement

- 6-hour safe drive away
- UV stable for gap filling
- Medium modulus, non-conductive urethane reduces significantly interference with mobile devices
- No heating required for improved work efficiency
- Compatible with existing aftermarket cleaners and primers
- Available in 310 ml cartridge or 400 ml and 600 ml sausage



## Sealing

### BETAFILL™ 10101, 216, 217, 218 Seam Sealants

#### Fill and seal in one operation

Provides high quality seam, panel sealing and gap filling in multiple applications.

Over-paintable with most systems, these one-component, moisture-curing sealants provide very high elongation, permanent elasticity and good adhesion to a variety of different substrates.

BETAFILL™ 10101 is sprayable and UV stable, it can be used on passenger cars, light commercial/leisure vehicles and in heavy truck applications for:

#### Passenger cars, light commercial/leisure vehicles

- Seam sealing of roof installation
- Gap filling and bonding of bonnet struts
- Joining of moldings, spoilers and trim
- Gap filling between panels
- Cosmetic finishing of external and internal joints available in different colors
- Sealing of lightweight construction materials such as GRP
- Sealing and fixing large internal panel areas
- Primerless sealing of variety materials such as wood, metal, plastic door frames and window fittings
- Available in 310 ml cartridge or 600 ml sausage



### BETAMATE™ 31 High-strength Adhesive/Sealant

### BETAMATE™ 32 Medium-strength Adhesive/Sealant

#### A strong primerless bond with permanent elasticity

BETAMATE™ 31 & 32 adhesive and sealant are one-component, moisture-cure, high- and medium-strength, POP-based and silane terminated adhesive/sealant with permanent elasticity that extends the DuPont sealants product portfolio. BETAMATE™ 31 & 32 adhesive and sealant have excellent adhesion to a wide range of substrates when used primerless.

- High- and medium-strength adhesive/sealant
- Easy to extrude with short tail
- Excellent UV stability
- Solvent- and isocyanate-free
- Low shrinkage
- Over-paintable wet-on-wet, reduces process time
- Available in 310 ml cartridge





## Crash Body Repair

### BETAMATE™ 2090 Fast Cure Structural Epoxy Adhesive System

OEM approved and certified – meets stringent manufacturer requirements

- Two-part, epoxy-based adhesive – use on most metals, alloys and composites
- Rapid curing profile at room temperature – weld through ability within one hour
- Easy-to-use with virtually all 1K dispensers for faster and easier body repairs
- Long working time with little preparation needed – enable more efficient repairs
- Heat-induction curing capabilities to significantly accelerate curing process
- High performance, especially at sub-zero temperatures
- Available in 195 ml TAH packaging



### BETAMATE™ 2098 Premium Strength Structural Epoxy Adhesive System

Provides premium OEM level strength and crash durability of OEM-quality repairs. One structural adhesive for all needs – adheres to most metals, alloys and substrates.

- Can help restore vehicles to same crash durability and body strength as OEM structural adhesives
- Crash proven and meets OEM specifications
- Weld through within one hour for faster repairs
- Easy to use with all dispenser types for faster and easier body repairs
- Long working time with little preparation needed
- Available in 195 ml TAH packaging



### BETAFORCE™ 2850S Structural PU Adhesive System

OEM approved – ideal adhesive technology to assemble and repair lightweight materials such as CFRP, ALU and SMC – without compromising structural performance

- 2K PU-based product portfolio tailor-made for hybrid and dissimilar material bonding
- Facilitates lightweight construction with focus on noise dampening, fuel efficiency and sustainability
- Long-term durability of bond assembly, robust material properties over wide temperature range
- Perfect match of high modulus, high tensile strength, as well as high elongation at break
- Corrosion protection for dissimilar metal bonding
- Room temperature curing, as well as accelerated curing options to accelerate process from trim shop bonding applications towards paint and body shop applications
- Ideal for hybrid materials assembly (SMS, CFRP, coated high strength steel and aluminum)
- Enables assembly of structural roofs, tail gates, trunk lids and door modules
- Available in 580 ml cartridge



## DuPont: World-class Products and Support

More than one billion vehicles worldwide have been assembled using DuPont glass bonding adhesives. These trusted products are also available to the automotive aftermarket.

### Safety

Safety is always the bottom line at DuPont. All our aftermarket products are crash proven to rigorous OEM standards and also stand up to robust durability testing.

### Innovation

DuPont's innovation mindset combined with dedicated experts and world-class technology, application development, and testing capabilities enables a fast and agile approach to finding and optimizing solutions for the aftermarket.

In fact, DuPont introduced direct glazing to the industry almost 60 years ago, and we continue to innovate and lead the market. For example, 40% of all vehicles produced globally contain DuPont elastic adhesives for glass bonding.

### Support

When you choose aftermarket products from DuPont, you not only get the best products available, you get an industry-leading partner. DuPont offers first-rate training for technicians and promptly responds to your needs and concerns to give you the support you need to satisfy your customers.

### Quality

DuPont, a trusted leader in direct glazing and structural bonding...for over 60 years...is committed to providing OE-quality products and service to our aftermarket customers that meet – or exceed – their needs.