



GLASS BONDING SYSTEMS



## BETAPRIME™ Primers



### Promoting Glass and Metal Adhesion

BETAPRIME™ primers from Dow Automotive Systems promote adhesion to the vehicle body or glass, and are ideal for use in automotive glass replacement applications. BETAPRIME primers are easy to use and meet all OEM and long-term durability requirements. The BETAPRIME primer portfolio includes:

**BETAPRIME 5404A Pinchweld and Encapsulation Primer**  
Simplifies installations – use for priming pinchwelds, PAAS, RIM and PVC applications.

**BETAPRIME 5500 1-Step Glass/Frit Primer**  
Primes the windshield in one pass. Available in multi-use can or single-use applicator.

**BETAPRIME 5201 Bare Metal Etch Primer**  
Enables shops to keep simple bare metal priming application in-house to save time and ensure compatibility.



### Customizable Solutions

As a global science and technology leader and full-service supplier, we work closely with our customers to bring technology-driven, cost-effective and usable answers to our customers based on the optimum combination of material, process and system costs. Our Technical Service and Development (TS&D) Centers provide in-the-field technical service with quick response to your immediate needs. Our centers also are dedicated to developing new products and solutions for our customers' application needs within customer timelines.

### About Us

Dow Automotive Systems, a business unit of The Dow Chemical Company, provides technology- and materials-enabled solutions for interior, exterior, powertrain, vehicle structural enhancement, acoustic management, emissions control and aftermarket applications in the automotive and commercial transportation industries.



### BETAPRIME™ 5404A Pinchweld and Encapsulation Primer

Promotes adhesion to vehicle body and inhibits rust in small nicks and scratches. It activates PAAS (Pre-Applied Adhesive System) beads and promotes adhesion to PVC substrates and RIM encapsulations. BETAPRIME™ 5404A primer is easy to use and meets all OEM requirements. It is available in bottles.

#### Benefits

- Simplifies applications – use as pinchweld primer, PVC primer and urethane activator for PAAS applications
- Reduces inventory – carry one primer instead of three
- Saves money – buy one primer instead of three
- Meets all long-term durability requirements

#### Applications

- Priming automotive body pinchwelds
- Integral component of all BETASEAL™ glass adhesives
- PAAS system requires BETAPRIME 5404A primer for the fresh bead of urethane adhesive to adhere to the PAAS bead
- PVC bonding to urethane adhesive
- Bonding RIM encapsulation

#### Physical Properties

- Color – black
- Flash point – 15 °F (-9.4 °C)
- Solids content – 26 percent
- Density – 7.49 lbs/gal (.9 kg/l)

#### Primer Performance Properties

- Brushability – no voids, bare spots or brush marks
- Hiding power – complete black-out
- Open time at room temperature:
  - Minimum: 6 minutes
  - Maximum: 24 hours, if the primed part is properly stored and dust free. To reactivate, apply BETAPRIME 5404A primer again (one time maximum).
  - After seal is broken, bottle remains within shelf life up to 10 days

Note: Exposed bare metal areas over 1/2" x 1/2" (1.3 cm x 1.3 cm) require an etching primer, such as BETAPRIME 5201 Bare Metal Etch Primer, to restore bond strength and durability.

### BETAPRIME™ 5500 1-Step Glass/Frit Primer

Chemically prepares glass and frit to assure optimal chemical link with the adhesive. It is easy to use and meets all OEM requirements. BETAPRIME™ 5500 primer is available in bottles or BETAPRIME 5500SA primer single-application units.

#### Benefits

- Saves time – prime the windshield in one pass
- Saves money – save up to 30 percent per installation on primer
- Meets all long-term durability requirements

#### Applications

- Structurally bonded or direct-glazed automotive glass, such as windshields, backlites, quarter glass and other stationary glass



- Use with all BETASEAL™ adhesives that require auto glass primers. Refer to the appropriate product sheet for details.
- An open time of longer than 24 hours necessitates reactivating the primer

#### Physical Properties

- Color – black
- Flash point – 14 °F (-10 °C)
- Solids content – 35 percent
- Density – 8 lbs/gal (.95 kg/l)

#### Primer Performance Properties

- Brushability – no voids, bare spots or brush marks
- Hiding power – complete black-out
- Open time at room temperature:
  - Minimum: 6 minutes
  - Maximum: 24 hours, if the primed part is properly stored and dust free. To reactivate, apply BETAPRIME 5500 primer again (one time maximum)
  - After seal is broken, bottle remains within shelf life up to 10 days

### BETAPRIME™ 5201 Bare Metal Etch Primer

Primes bare metal areas larger than 1/2" x 1/2" (1.3 cm x 1.3 cm). It cures up to 100 times faster than two-part bare metal etch primers and is compatible with all BETASEAL™ adhesive systems. BETAPRIME™ 5201 primer is easy to use. It meets all OEM requirements and is available in bottles.



#### Benefits

- One-part bare metal etch primer
- Primes bare metal in one quick and easy step
- Fast – dries in 15 minutes or less
- Meets all long-term durability requirements

#### Applications

- Priming bare metal areas larger than one-half square inch on automotive body pinchwelds

#### Physical Properties

- Color – gray
- Flash point – 25 °F (-3.9 °C)
- Solids content – 45 percent
- Density – 10.5 lbs/gal (1.3 g/ml)

#### Primer Performance Properties

- Brushability – no voids, bare spots or brush marks
- Hiding power – complete
- Open time at room temperature:
  - Minimum: 15 minutes
  - Maximum: 24 hours, if the primed part is properly stored and dust free
  - After seal is broken, bottle remains within shelf life up to 14 days

Note: When corrosion destroys or reduces the metal's strength and thickness, take the vehicle to an autobody repair facility to restore the rusted area to its original OEM condition.



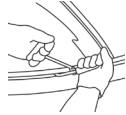
### 1. Wear appropriate safety equipment

- Protect yourself
- Wear safety equipment, such as work gloves, nitrile chemical resistant gloves, safety glasses, work apron or other protection required by your company



### 2. Inspect replacement glass

- Use BETACLEAN™ GC-800 Glass Cleaner and a clean, lint-free paper towel to clean the bonding surface of the glass
- Inspect replacement glass for defects
- Verify all primers and adhesives are within use-by dates



### 3. Cut out the glass

- Protect the customer's vehicle
- Remove all hardware and reveal moldings
- Cut out the windshield or body glass using your preferred method
- Clean any dirt and debris from around the existing urethane



### 4. Prepare the glass

- Use BETACLEAN GC-800 Glass Cleaner and clean, lint-free paper towel to clean the bonding surface of the glass  
*Note: If bonding to glass close to encapsulation, "wet scrub" the glass bonding surface*
- If contamination is present, "wet scrub" the bonding surface with an abrasive pad and BETACLEAN GC-800 cleaner, then apply a second application of BETACLEAN GC-800 cleaner and remove with a lint-free paper towel

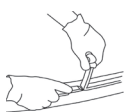
#### 4.1. Prime glass surfaces

- Shake BETAPRIME™ 5500 1-Step Glass/Frit Primer for at least **one (1) minute** before application
- Open BETAPRIME 5500 bottle carefully and insert a clean, unused dauber; to avoid spilling, never pour liquid on dauber
- If using single application BETAPRIME 5500SA, activate according to the directions
- Apply BETAPRIME 5500 along the bond line
- Replace inner seal and cap on bottle immediately
- Allow a minimum of **six (6) minutes** for primer to dry down to 40° F (4.4° C)
- Apply the reveal molding or original molding to the glass, if necessary



#### 4.2. Prepare encapsulation or PAAS

- Clean encapsulation or PAAS bead with BETACLEAN GC-800 Glass Cleaner and a clean, lint-free paper towel
- "Wet scrub" the encapsulation with an abrasive pad, then clean again with BETACLEAN GC-800 cleaner and allow to dry completely  
*Note: Skip this step if bonding to PAAS*
- Shake BETAPRIME 5404A Pinch weld and Encapsulation Primer for at least **one (1) minute** to ensure contents are thoroughly mixed
- Apply BETAPRIME 5404A primer to the encapsulation or PAAS surface with dauber
- Apply BETAPRIME 5404A primer to any molding surface that contacts new urethane to promote adhesion
- Replace inner seal and cap on bottle immediately
- Allow a minimum of **six (6) minutes** for the primer to dry down to 20° F (-6.6° C)



### 5. Trim back the urethane

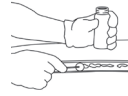
- Trim the urethane, leaving a 1-mm to 2-mm base of original equipment urethane on the pinch weld
- Take care not to damage the vehicle paint or pinch weld



### 6. Prepare the pinch weld

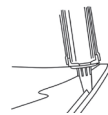
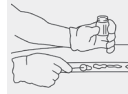
*Note: Exposed bare metal areas over ½" x ½" (1.3 cm x 1.3 cm) require an etching primer to restore bond strength and durability (see bare metal priming below)*

- Shake BETAPRIME™ 5404A primer for at least **one (1) minute** before application
- Inspect the pinch weld for any bare metal or scratches; if found, prime with BETAPRIME 5404A primer
- Open the bottle carefully and insert a clean, unused dauber; to avoid spilling, never pour liquid on dauber
- Apply BETAPRIME 5404A primer to scratches along the bond line; avoid priming existing urethane bead
- Replace inner seal and cap on bottle immediately
- Allow a minimum of **six (6) minutes** for the primer to dry down to 20° F (-6.6° C)



#### Bare metal priming:

- Clean metal surface with an abrasive pad, making sure to rough up edges of painted areas
- Wipe area to be primed with a clean, lint-free paper towel dampened with 100% acetone
- Allow two (2) minutes to flash
- Shake BETAPRIME 5201 Bare Metal Etch Primer for at least **one (1) minute** before application
- Using a clean, unused dauber, apply an even coat of BETAPRIME 5201 primer
- Replace cap on bottle immediately
- Allow at least **15 minutes** for material to dry down to 20° F (-6.6° C)
- Apply a coat of BETAPRIME 5404A primer on top of the primed area, making sure to completely cover BETAPRIME 5201 primer
- Replace inner seal and cap on bottle immediately
- Allow a minimum of **six (6) minutes** for the primer to dry down to 20° F (-6.6° C)



### 7. Apply BETASEAL™ adhesive

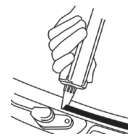
(Choose either glass or pinch weld application)

#### Glass application:

- Hold the applicator in a vertical position (90°) and dispense the adhesive with a continuous motion in a uniform "V" shaped bead
- Apply adhesive to the glass on top of the bond line

#### Pinch weld application:

- Hold the applicator in a vertical position (90°) and dispense the adhesive with a continuous motion in uniform "V" shaped bead
- Apply adhesive to the pinch weld perimeter directly on top of the freshly cut original equipment urethane film



#### Either application:

- Make sure bead is uniform and has no gaps; add material or tool joints, if necessary



### 8. Install the glass

- Place the glass in the body opening
- Adjust glass to precise alignment
- Lightly press it into position

### 9. Clean up

- Clean any excess uncured urethane with BETACLEAN™ U-424 Urethane Adhesive Cleaner
- Clean the newly installed glass with BETACLEAN GC-800 Glass Cleaner



### 10. Recordkeeping

- Attach master lot code sticker to paperwork or manually record primer and adhesive lot numbers
- Record D.O.T number from glass part on sticker
- Inform the vehicle owner/operator as to the proper safe drive-away time



Product Number	Package Size	Type	Units/ Carton	Cartons/ Case	Approx Weight/ Case
5404A	3.4 oz (100 ml)	Bottle	5	5	10 lb (4.5 kg)
5500	1.4 oz (40 ml)	Bottle	10	5	10 lb (4.5 kg)
5500SA	.3 oz (10 ml)	Applicator	12	39	20 lb (9.1 kg)
5201	.5 oz (15 ml)	Bottle	5	6	3 lb (1.4 kg)

### Installation Guidelines

See vehicle manufacturer's recommendations for additional details. Do not use any other manufacturers' primers, cleaners or other chemicals in conjunction with any BETASEAL™ adhesive system.

### System Compatibility

Use no other manufacturers' primers, cleaners or other chemicals in conjunction with any BETASEAL™ adhesive system.

BETAPRIME™ primers are designed specifically for use with BETASEAL™ adhesive systems.

### Dow Automotive Systems' Commitments

- The products, when shipped, meet the then-current sales specifications
- Dow Automotive Systems will notify customer if the sales specifications are changed
- Dow Automotive Systems will supply customer with current MSDS
- Dow Automotive Systems conveys the product with good title, free from any lawful lien or encumbrance

### Vehicle Clean Up

- If required, use BETACLEAN™ U-424 Urethane Adhesive Cleaner, following all directions and precautions
- Test BETACLEAN U-424 cleaner on an inconspicuous area prior to using
- BETACLEAN U-424 cleaner is not recommended for newly painted, hard plastic or bonding surfaces
- Dispose of empty containers properly

### Safety Precautions

- Keep away from heat, sparks or open flame
- Use only with adequate ventilation
- Avoid breathing vapors
- If swallowed, call physician immediately
- For eye contact, flush with water for 15 minutes and get medical attention
- Wear appropriate safety equipment, such as gloves and eye protection, or as specified by your company
- Avoid skin contact; flush with water, if necessary
- Refer to Material Safety Data Sheet (MSDS) for additional information

### Shelf Life

- Maximum shelf life, as stated on product packaging, is achieved when the product is stored at an ambient temperature that does not continuously exceed 110°F (43.3 °C).
- All materials manufactured by or for Dow Automotive Systems have a shelf life. Urethane adhesives and primers are marked with expiration dates. Unopened product is considered within shelf life up to and including the date marked on the product. Product is considered expired past the date marked and should not be used.

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[www.dowautomotiveaftermarket.com](http://www.dowautomotiveaftermarket.com)

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