TITAN PRO1<sup>®</sup> Professional

## **High Modulus Fast Cure Urethane Adhesive**



#### Description

TITAN PRO1<sup>®</sup> is a one-part, high viscosity, nonconductive polyurethane formulated for autoglass installations. Performance characteristics exceed criteria established by the automotive industry and those covered by FMVSS 212.

Features	Benefits	
Isocyanate Free	Enhanced environmental and personal safety	
Primerless to Glass	Reduced installation times, reduced costs, increased safety margin and reduced waste	
Cold Applied	No heating or special equipment required	

US Patent 4,889,903

#### Packaging

<u>CT-1500</u> - 12 EA 10.1 fl oz (310 ml) aluminum cartridges per case

 $\underline{SG-1500}$  - 12 EA 20 fl oz (591 ml) foil sausage packs per case

Technical Data			
Base Polymer	Isocyanate Free Polyurethane		
Color	Black		
Tack Free Time	Approximately 10 minutes at 70°F (23°C) / 50% RH		
Type of Curing	Moisture		
Shore A Hardness	55-65		
Tensile Strength	>1000 psi		
Lap Shear Strength	>550 psi		
Values are typical performance properties and characteristics based on laboratory testing. This is intended as a guide for comparison purposes and does not constitute a specification or specification range.			

Application Properties			
Application Temperature:	$0^\circ$ to $113^\circF$ (-17° - 45°C )		
Storage Temperature:	$40^\circ$ to $90^\circ$ F $~(5^\circ$ - $33^\circ C$ )		
Shelf Life:	9 months in unopened container when stored at 77° F / 50% RH		

<b>TITAN PRO1<sup>®</sup> Safe Drive Away Chart</b> Minimum installation humidity: 10%					
RH	20%	50%	75%	90%	
>85°F	1 hr	1 hr	1 hr	1 hr	
70° F	1 hr	1 hr	1 hr	1 hr	
55° F	1 hr	1 hr	1 hr	1 hr	
40° F	1 hr	1 hr	1 hr	1 hr	
25° F	1 hr	1 hr	1 hr	1 hr	

For best results, ADCO recommends that TITAN PRO1<sup>®</sup> Urethane Adhesive be used at temperatures of 25°F and above.

#### **Application Instructions**

- 1. If there is inclement weather (snow, ice, rain, mist, fog etc.), perform glass installations in a controlled environment to assure proper adhesion.
- 2. Remove all exterior moldings, trim, and windshield following the vehicle manufacturer's instructions.
- 3. Using the full cut method, inspect the old urethane to insure a firm bond exists to the pinchweld. Firmly bonded urethane should be trimmed, leaving a level bed around the entire pinchweld approximately 1/16" to 1/ 8" thick.
- 4. If old urethane demonstrates any signs of peeling, or if butyl tape, silicone, or rust is apparent, remove all material down to the pinchweld.
- 5. Prime pinchweld scratch marks and repaired rust areas with TITAN<sup>®</sup> UP100 Universal Primer. Allow 10-15 minutes to dry. (See TITAN<sup>®</sup> UP100 product data sheet for complete instructions.)
- 6. Clean replacement windshield thoroughly with  $\rm TITAN^{\circledast}$  604 Glass Cleaner.

TITAN PRO1<sup>®</sup> 3/20/06 Revision 06 07/16/09

TITAN PRO1<sup>®</sup> Professional

### **High Modulus Fast Cure Urethane Adhesive**



#### **Application Instructions (continued)**

**Caution:** Some glass frits are conditioned with a variety of chemicals. ADCO recommends that installers be aware that some frits may require additional preparation to insure a safe installation. If contamination is still present after the initial cleaning with TITAN<sup>®</sup> 604 Glass Cleaner, ADCO recommends wet scrubbing the bonding area with a light or medium grade abrasive pad and re-clean with 604 as needed to insure no contamination exists. This process is recommended for both Primerless and Primed applications.

- 7. Wipe moldings and encapsulated parts with TITAN<sup>®</sup> 604 Glass Cleaner. Encapsulated parts should be primed with TITAN UP100 Universal Primer. Use a fresh applicator each time the primer is applied.
- 8. Where required, select and install appropriate dam tape and blocking materials.
- 9. Apply a 1/2" to 5/8" high bead of TITAN PRO1<sup>®</sup> Urethane Adhesive around the entire perimeter of the pinchweld. Apply directly on top of the freshly trimmed existing bed of urethane.
- 10. Install clean glass into opening, using light hand pressure to assure complete contact with wet TITAN<sup>®</sup> adhesive. Replace moldings and accessories.

**Warning:** Condensation can form on application surfaces. If condensation cannot be fully removed, complete the installation in a controlled environment at temperature and humidity levels indicated on the "Safe Drive Away Chart".

#### Health & Safety

For all TITAN<sup>®</sup> products, and for other products used in conjunction with TITAN<sup>®</sup> products, users must follow individual product data sheet and Material Safety Data Sheets (MSDS) for health and safety precautions. Always use protective eyewear. Inform your customer that the USE OF SEAT BELTS IS ALWAYS RECOMMENDED.

#### Clean-Up

Wipe off excess TITAN PRO1<sup>®</sup> with a solvent or citrus based cleaner. For cleaning hands, use pumice hand cleaner.

#### Caution

All statements and technical information in this document are based on tests or data that ADCO believes is reliable. However, ADCO does not warrant or guarantee the accuracy or completeness of this information. The suitability of this product for each intended use must be determined by the purchaser or user who has sole knowledge and control of factors that can affect product performance and assumes all risk and liability arising out of such use.

# Limited Warranty, Exclusive Remedy, and Limitation of Liability

ADCO warrants its products to conform to ADCO's specifications at the time of sale when tested according to ADCO standards. If a product is proven to be defective when tested according to ADCO standards, ADCO will, at its option, refund the purchase price or replace or repair the defective product. THIS LIMITED WARRANTY IS THE BUYERS SOLE AND EXCLUSIVE REMEDY AGAINST ADCO AND IS IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING. BUT NOT LIMITED TO. ANY IMPLIED WARRANTY OF MERCHANTIBILITY OR FITNESS FOR A PARTICULAR PURPOSE. In no event shall ADCO be liable for any special, incidental, consequential, or punitive damages arising out of any claims whether based on negligence, contract, warranty, strict liability or otherwise.



TITAN PRO1<sup>®</sup> 3/20/06 Revision 06 07/16/09