



PRODUCT OVERVIEW

AP200 Adhesive is a tough acrylic adhesive designed primarily for mounting rear view mirrors to automobile windshields. This adhesive has also found wide acceptance in a variety of structural bonding applications due to its versatile performance capabilities.

BENEFITS

Improved Reliability

- High impact and shock resistance
• Temperature resistance: -40 to 300°F (-40 to 149°C)
• Good gap filling properties.
• Excellent adhesion to a variety of surfaces.
• Excellent UV resistance
• Consistent bond strength

Improved Processing

- Fast fixturing
• No pot life, no mixing
• No waste problems
• Low toxicity
• Low odor
• Thixotropic: facilitates dispensing/applying
• Non-migrating on vertical surfaces
• Increases productivity
• Requires minimal parts cleaning
• Easy clean-up

Cost Effective

- Requires minimal clamping time and tooling.
• Eliminates high energy cost needed for heat cured materials.
• Eliminates need for mechanical clips

APPLICATIONS

- Rear-View-Mirror bonding.
• Bonding pre-coated sheet metal.
• Bonding ferrites, plastic, and metal wear strips.
• Bonding metals with special surface treatments such as galvanized, phosphate, and dichromate surfaces.

TYPICAL PROPERTIES - UNCURED

Table with 2 columns: Property and Value. Rows include Base Resin (Modified Acrylic), Solids (100% - No Solvents), Appearance (Off-White, Translucent), Specific Gravity @ 25°C (1.07), Viscosity @ 25°C, cP (60,000), and Flash Point (See MSDS).

TYPICAL CURING PERFORMANCE

AP200 Adhesive is designed to be used with AP200 Activator and cured at room temperature. Cure characteristics are measured by determining fixture time (handling time) and speed of cure.

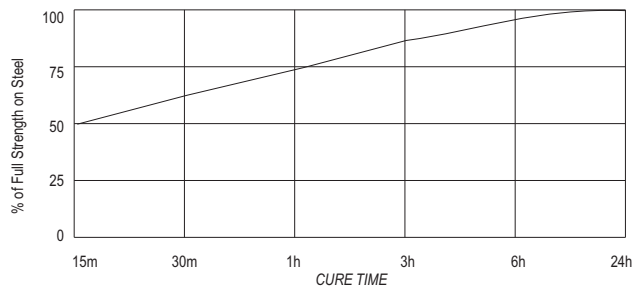
Fixture Time

Fixture time is defined as the time to develop a shear strength of 0.1 N/mm². Tested on steel lap-shear specimens, 1 side primed with AP200 Activator and tested according to ISO 4587

Table with 2 columns: Gap, mm and Fixture Time, seconds. Rows show 0 gap with ≤ 25 seconds and 0.25 gap with ≤ 330 seconds.

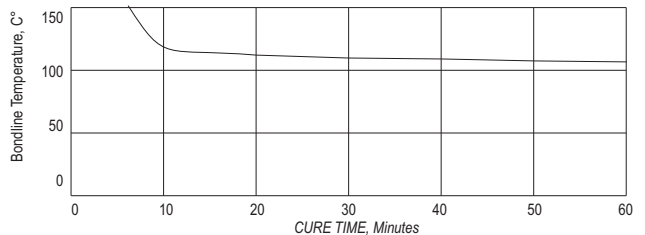
Cure Speed

The graph below shows shear strength developed with time using AP200 Activator on steel lap-shear specimens and tested according to ISO 4587.



Cure Speed vs. Temperature

Heat can be used to effect or accelerate cure when surface priming operations are undesirable. Typical heat cure conditions consist of heating and maintaining bondline at a temperature shown in the graph below for the corresponding time specified.





**TYPICAL PROPERTIES (CURED)**

**Physical Properties**

Method	Property	Value
ASTM D882	Tensile Strength, psi	2,700
ASTM D882	Modulus of Elasticity, psi	21,000
ASTM D882	Elongation, %	130
ASTM D2240	Durometer Hardness, Shore D	65

**TYPICAL CURED PERFORMANCE**

**Shear Strength**

Tested on lap-shear specimens with 1 side primed with AP200 Activator and tested according to ISO 4587

Substrate	Gap, mm	RT Cure, hrs	Shear Strength N/mm <sup>2</sup> (psi)
Steel	0	24	≥ 11.7 (2500)
Steel	0	48	20.7 (3000)
Steel	0.25	48	19.0 (2750)
Steel	0.50	48	17.4 (2520)
Aluminum	0	48	13.1 (1900)
Zinc dichromate 0	0	48	13.1 (1900)

**TYPICAL ENVIRONMENTAL RESISTANCE**

Shear Strength, steel lap-shear specimens, 1 side primed with AP200 Activator, cured for 48 hours at 22°C and tested according to ISO 4587

**Heat Aging**

Aged for 1000 hours at temperature indicated and tested at 22°C

Temperature	Shear Strength, N/mm <sup>2</sup> (psi)
93°C	15.7 (2280)
121°C	10.8 (1560)
150°C	4.1 (600)

**Humidity Resistance**

Conditioned in 50°C condensing humidity for time indicated and tested at 22°C

Exposure Time	Shear Strength, N/mm <sup>2</sup> (psi)
1 week	15.7 (2280)
2 weeks	11.2 (1620)
4 weeks	4.1 (600)

**Chemical/Solvent Resistance**

Aged 30 days at 87°C and tested at 22°C

Chemical/Solvent	% of Initial Strength
Air Reference	100
Water Glycol 50/50	30
Gasoline	10
Motor Oil	100

**GENERAL INFORMATION**

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.

For safe handling information on this product, consult the Material Safety Data Sheet (MSDS).

**Directions For Use**

1. For best performance bond surfaces should be clean and free from grease and other contaminants.
2. To ensure a fast and reliable cure, AP200 Activator should be applied to one of the bond surfaces and the adhesive to the other surface. Parts should be assembled within 10 minutes.
3. The recommended bondline gap is 0.1mm. Where bond gaps are large (up to a maximum of 0.5 mm), or faster cure speed is required, AP200 Activator should be applied to both surfaces. Parts should be assembled immediately (within 1 minute).
4. Excess adhesive can be wiped away with organic solvent.
5. Bond should be held clamped until adhesive has fixtured usually less than 1 minute.
6. Allow 5 minutes before hanging rear-view-mirror.

**STORAGE**

AP200 should be stored in a cool, dry location in unopened containers at a temperature between 46°F to 82°F (8°C to 28°C) unless otherwise labeled. Optimal storage is at the lower half of this temperature range. To prevent contamination of unused material, do not return any material to its original container.

**PRODUCT AVAILABLE**

AP200 15ml kit (15ml Adhesive and 15ml Activator)

These suggestions and data are based on information we believe to be reliable and accurate, but no guarantee of their accuracy is made. Pegus Systems USA shall not be liable for any damage, loss or injury, direct or consequential arising out of the use or the inability to use the product. In every case, we urge and recommend that purchasers, before using any product in full scale production, make their own tests to determine whether the product is of satisfactory quality and suitability for their operations, and the user assumes all risk and liability whatsoever, in connection therewith.