

ADBOND 5531 Methacrylate structural 2 parts adhesive

DESCRIPTION

ADBOND 5531 is a high-performance two-part methacrylate adhesive engineered to bond a wide range of plastics, metals, and composites assemblies. It offers outstanding bond strength, is extremely durable, with excellent impact and weathering properties. It is 100% reactive and cure at room temperature. ADBOND 5531 greatly increases the reliability of finished assemblies with exceptional flexibility. It has the ability to with stand extreme temperature fluctuation, thermal cycling, and resistance to a wide range of chemicals and environmental conditions.

PHYSICAL PROPERTIES

Uncured @ 73°F (23°C) 50% R.H			
Test Description	U/M	Results	
		Part A (Resin)	Part B (Activator)
Color		Off White	Amber
Viscosity (cps)	cPs	60,000	60,000
Density (mixed)	lbs/gal. (Kg/l)	8.2 (0.98)	
Mix ratio		1	1
Work Time	Minutes	10	
THIX	Index	5	
Flash Point	°C (°F)	11 (51)	

Cured properties			
Test description	Standard	U/M	Results
Gap Filling		Inch (mm)	0.125 (3.2)
Handling Time		Minutes	30
Tensile Strength	ASTM D638	PSI	3000 - 3500
Lap Shear Strength	ASTM D1002	PSI	3000 - 3500
Service temperature		°C (°F)	-55 - 121 (-67 - 250)

SUBSTRATES THAT ADBOND 5531 CAN BOND

Metals

- Aluminum (anodized or chemically etched)
- Clean steel
- Stainless steel
- Coated metals

Thermosets

- Fiberglass
- Phenolics
- Gel coats
- Epoxy

- RIM urethane
- Polyurethane
- Liquid molding resins

Thermoplastics

- Acrylics
- ABS
- Polycarbonates
- Nylons
- PPO's

- Vinyl
- Styrene
- PEEK
- PBT Blends

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- PET Blends

APPLICATION

- Vertical and horizontal panel assembly for truck body, trailer, bus, etc.
- Roof bow
- Vehicle body assembly
- Bonding of decorative elements or interior finishes
- Metal reinforcement
- Steel doors channel

SURFACE PREPARATION

All surfaces must be clean, dry, dust and grease free. Best result will be achieved with surfaces that have been lightly abraded immediately prior to bonding. Use ADSOLVE 6002 to clean all surfaces. Let evaporate for 20 minutes before adhesive application. Proper mixing is required for the curing and adhesive strength development. Carefully secure or clamp parts to prevent joint movement while the adhesive sets. Adhesive bond should be allowed to develop full strength before subjecting to any service load. Excess adhesive can be wiped away with organic solvent before curing. Removed the excess of adhesive mechanically when cured. For more details consult our document: [Surface Preparations](#).

METHOD OF USE

ADBOND 5531 is easy to apply with manual or pneumatic 2K / 1:1 ratio equipment. The use of a 3/8 x 24 element static mixer is recommended to ensure adequate mixing. Bonding should be done before skin formation. For best adhesion film thickness should be generally at 0.006" depending on substrates. Temperature of substrates and adhesive should be the same. The product is best used at temperature between 18°C (65°F) and 27°C (80°F). Temperature below 18°C (65°F) will slow the cure speed of the material and viscosities will be higher. Temperature above 27°C (80°F) will cause the material to cure faster and viscosities will be lower. For consistent dispensing maintain temperature in the above-mentioned range. Uncured adhesive can be cleaned with a solvent such as NMP or mineral spirit. Cured adhesive can be removed only mechanically.

PACKAGING

- 400ml dual cartridges
- Drum / pail kit

STORAGE AND SHELF LIFE

The shelf life of the ADBOND 5531 is one year from date of manufacturing. Shelf life is based on the products being stored properly at temperature between 13°C (55°F) and 24°C (75°F). Exposure to temperature above 24°C (75°F) will reduce the shelf life of the product.

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Always consult SDS (Safety Data Sheet) before using the adhesive. Apply usual hygienic rules. Always test the product on your application before use. For industrial use only. For more information, please contact your technical representative. **ADBOND 5531 is flammable. Keep away from heat, sparks, and open flame.**

IMPORTANT**READ CAREFULLY**

The information and recommendations contained herein are derived from our research and information from other reliable sources. This data applies only to our products and not when used with other products. We believe in the reliability of our information. However, no guarantee is offered to that effect. It is the responsibility of the buyer to verify this data according to their own operating conditions to ensure that they conform to the purpose for which the product is intended, even before using it.

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