

PERMABOND®

260 SERIES

Cyanoacrylates



Ref #: 010104PB260s

TYPICAL APPLICATIONS

Rubber Bonding
Wood Assembly
Bonding of Passivated Metals

FEATURES & BENEFITS

- ◆ Instant Setting
- ◆ Improved Gap Filling
- ◆ Faster Strength Development
- ◆ Improved Bonding to Difficult Surfaces
- ◆ High Shear Strength
- ◆ Easy to Apply
- ◆ One Part System

GENERAL DESCRIPTION

The PERMABOND 260 series provides faster set times and improved gap-filling capability compared to conventional cyanoacrylates. The adhesives bond a wide range of substrates including metals, ceramics, plastics and elastomers as well as substrates with acidic surfaces such as wood. They are excellent for bonding difficult-to-bond plastics such as polyacetals.

These adhesives are stable, easily dispensed and come in a range of viscosities suitable for varied application requirements.

Non-Warranty: The information given and the recommendations made herein are based on our research and are believed to be accurate but no guarantee of their accuracy is made. In every case we urge and recommend that purchasers before using any product in full-scale production make their own tests to determine to their own satisfaction whether the product is of acceptable quality and is suitable for their particular purpose under their own operating conditions. THE PRODUCTS DISCLOSED HEREIN ARE SOLD WITHOUT ANY WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED.

No representative of ours has any authority to waive or change the foregoing provisions but, subject to such provisions, our engineers are available to assist purchasers in adapting our products to their needs and to the circumstances prevailing in their business. Nothing contained herein shall be construed to imply the non-existence of any relevant patents or to constitute a permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of this patent. We also expect purchasers to use our products in accordance with the guiding principles of the Chemical Manufacturers Association's Responsible Care® program.

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PHYSICAL PROPERTIES OF THE UNCURED ADHESIVE

<u>Liquid Adhesive:</u>	<u>PB 260</u>	<u>PB 261</u>	<u>PB 262</u>	<u>PB265</u>	<u>PB 268</u>
Color	-----Clear, Colorless Liquid-----				
Viscosity (cP @ 20°C)	1-5	30-50	65-125	300-550	1200-2400
Flash Point, °C (°F)	-----83 (181)-----				
Specific Gravity	-----1.05-----				
Gap Filling, inches	0.002	0.004	0.006	0.008	0.017
Shelf Life stored at 2°C-7°C (35°F-45°F), months	-----12-----				

SET TIME, SECONDS

Steel	<5	<5	<5	<10	<10
Plastic	<5	<5	<5	<5	<5
Rubber	<5	<5	<5	<5	<5

Military Classification per Mil-A-46050C, this spec is superseded by Mil-A-A3079	Type II	II	II	II	II
	Class 1	1	2	3	3

PHYSICAL PROPERTIES OF THE CURED ADHESIVE

Lap Shear Strength on steel at 25°C, psi (ASTM D-1002, 24 hours)	2000
Coefficient of thermal expansion in/in/°F	1.26 x 10 ⁻⁴
Soluble In	Nitroethane, Methyl Ethyl Ketone, Acetone
Operating temperature, °C (°F)	-60 (-80) to 82 (180)

SET TIME ACROSS A 4 MIL GAP*

<u>PERMABOND 260 Series, seconds</u>		<u>Conventional Ethyl Cyanoacrylate Adhesive, seconds</u>
PB 260	15	>60
PB 261	15	60
PB 262	13	55
PB 265	13	>60
PB 268	11	40

*PB Test Method 225

SURFACE PREPARATION

The surface should be free of gross contamination such as dirt, dust, grease or oil. An alcohol wipe is suitable for cleaning most surfaces. Acetone is recommended for epoxies, polyesters, phenolics, melamine, urea formaldehyde, nylon and polyurethane. Optimum strength is obtained by abrading the surface followed by a solvent wipe to remove any loose particles.

APPLICATION & DISPENSING

PERMABOND's Equipment Group has a complete line of PERMABOND dispensing equipment for all types of assembly and automated applications. Customized equipment can be designed to meet the specific application requirements. Contact your local PERMABOND Sales Engineer for a complete systems approach to dispensing any of the PERMABOND 260 products.

STORAGE & HANDLING

Cyanoacrylate adhesives are subject to an aging process and have a limited shelf life. The shelf life is one year when stored in a refrigerator. It could be less when stored at ambient environment depending on conditions of temperature and humidity.

A note of caution: Before opening, the containers must be warmed to room temperature; otherwise water might condense into the bottle and cause hardening of the adhesive.

Avoid skin contact. Wear polyethylene gloves and safety glasses. Do not use rubber or cloth gloves. Cyanoacrylates can form strong bonds rapidly to skin. To break the bond, peel and flex the skin carefully. Immersion in soapy water aids in breaking the cyanoacrylate bond. Acetone or nail polish remover may also be used. If cyanoacrylate should come in contact with the eye, seek medical attention.

Cyanoacrylate vapors are lachrymatory and can irritate eyes and mucous membranes. Use these materials with proper ventilation.

VAPOR CONTROL RECOMMENDATIONS

1. Use adequate ventilation. Remove adhesive vapors with suitable exhaust ducting. Since cyanoacrylate vapors are heavier than air, place exhaust intake below work area. Activated charcoal filters using an acidic charcoal have been found effective in removing vapors from effluent air.
2. Avoid use of excess adhesive. Excess adhesive outside of the bond area will increase the level of vapors. Automatic dispensing equipment will prevent excess adhesive.
3. Assemble parts as quickly as possible. Long open times will increase level of vapors.

CLEAN UP OF SPILLED LIQUID

When large quantities of cyanoacrylate adhesives are accidentally spilled, the area should be flooded with water that will cause the liquid cyanoacrylate to cure. The cured material can then be scraped easily from the surface. NOTE: The liquid adhesive should not be wiped up with rags or tissue. The fabric will cause polymerization and large quantities of adhesive will generate heat on cure, causing smoke and strong irritating vapors. ALWAYS FLOOD WITH EXCESS WATER TO CLEAN UP SPILL CONDITIONS.

FOR INDUSTRIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN.