



Cyclo Industries, Inc

401 Maplewood Dr • Jupiter, FL 33458 • 561-775-9600

TECHNICAL DATA SHEET

Maximum Strength Retaining Compound-Green

C-68050

PRODUCT DESCRIPTION

Cyclo® Maximum Strength Retaining Compound-Green is a high strength, single component anaerobic retaining adhesive for cylindrical joints. It is a green colored liquid resin that hardens and cures in the absence of air. This product self-hardens into a tough plastic material when it is confined between close-fitting metal parts. The cured adhesive is a thermoset plastic suitable for exposure to most solvents and engine fluids.

PRODUCT BENEFITS

- No mixing
- No curing outside of joint
- Prevents fretting and corrosion
- Allows the use of slip fit or press fit
- For use on assemblies with gaps up to 0.015" diametral

TYPICAL APPLICATIONS

- Used to bond cylindrical fitting parts
- Replaces set screws
- Replaces clamp rings
- Replaces snap ring
- Wheel bearings
- Idler shafts
- Bearings

DIRECTIONS FOR USE

1. Remove any grease or oil by using a compliant Cyclo® Brake & Parts Cleaner.
2. For slip fitted assemblies, apply adhesive around the leading edge of the collar and use a rotating motion during assembly.
3. For press fits, adhesive should be applied thoroughly to both bond surfaces and assembled at high press-on rates.
4. For shrink fitted assemblies, the adhesive should be coated onto the pin; the collar should then be heated to create sufficient clearance for free assembly.
5. For faster cure rates, use Cyclo® C-930 Surface Preparation on both surfaces.
6. Parts should not be disturbed until sufficient handling strength is achieved.
7. Any material that is on the outside of the assembly will not cure. Wipe off with a dry cloth.

For Cleanup

1. Residual liquid films outside the joints are readily soluble in compliant Cyclo® Brake & Parts Cleaner.

2. Cured product can be removed with a combination of soaking in Cyclo® Gasket Remover and mechanical abrasion such as a wire brush.

For Disassembly

1. Apply localized heat to assembly to approximately 232°C(450°F). Disassemble while hot.

For Reassembly

1. Remove any loose product from the assembly.
2. Apply primer to mating parts.
3. Assemble as per directions.

PROPERTIES OF UNCURED MATERIAL

	Typical Value
Appearance	Green liquid
Specific Gravity @ 77°F	1.1
Viscosity, cps	1250
Flash Point, COC, °C(°F)	>93(>200)
Cure Speed Fixture Time –	10 minutes
Full cure -	24 hours

PERFORMANCE OF CURED MATERIAL

	Value
Temperature Resistance -	-54°C to +149°C (-65°F to +300°F)
Shear Strength –	4000PSI
Corrosivity -	None (Slightly acidic, may discolor some metals.)
Maximum gap fill -	.015" diametral

TYPICAL CURING PERFORMANCE

Cure speed vs. substrate

The rate of cure will depend on the material used. Cyclo Maximum Strength Retaining Compound-Green will react faster and stronger with **Active Metals**. However, **Inactive Metals** will require the use of an activator (Cyclo® C-930 Surface Preparation) to obtain maximum strength and cure speed at room temperature.

Active Metals

Soft Steel Iron
Copper
Brass
Manganese
Bronze
Nickel
Aluminum Alloy

Inactive Metals

Bright Platings
Anodized Surfaces
Titanium
Zinc
Pure Aluminum
Stainless Steel
Cadmium

The graph below shows the breakaway strength developed

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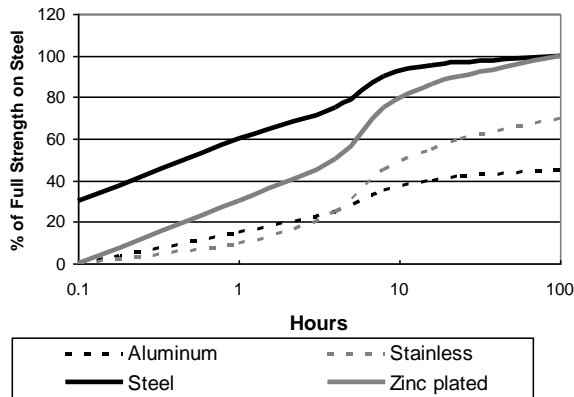
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with time on 3/8" - 16 Grade 5 bolts and Grade 8 nuts compared to different materials.

Antifreeze 87°C	85%	
Gasoline 23°C	100%	
Ethanol 23°C	85%	
Acetone 23°C	90%	
Heat Aged 150°C		110%
Motor oil(5W30SL) 125°C		130%

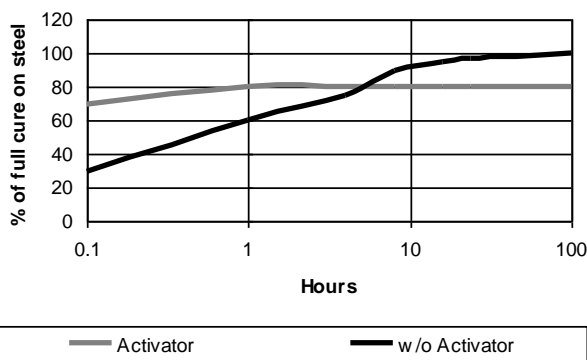
Cure Speed vs Substrate



Cure speed vs. activator

Where cure speed is unacceptably long, or large gaps are present, applying an activator (Cyclo® C-930 Surface Preparation) to the surface will improve cure speed. A 3/8-16 steel nut and bolt assembly will fixture in about 5 minutes using an activator, while fixturing will occur in about 20 minutes without an activator. Full cure in 24 hours for both procedures. The graph below shows the breakaway strength developed with time using Cyclo® C-930 Surface Preparation.

Cure Speed vs Activator



Chemical / Solvent Resistance

Aged under conditions and tested at 22°C(72°F)

% Initial Strength retained after time

Temp	500hr	1000hr
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