



## **METREGRIP 312 CLEAR**

### **RAPID-SETTING, HIGH STRENGTH, FIVE MINUTE EPOXY ADHESIVE**

**METREGRIP 312 CLEAR** is a unique two part epoxy adhesive which cures to a highly resilient bond in only 5 minutes. Combining the exceptional high bond strength of conventional epoxy adhesives and the handling ease of the “short setting time”, **METREGRIP 312 CLEAR** does not exhibit the sacrifice of properties attendant to most shorter cure “convenience adhesives”.

**METREGRIP 312 CLEAR** meets the strict requirements of the **METREGRIP Series**. The mixing ratio is non-critical -- simple one-to-one mixture --- either by weight or volume. The two parts form a pourable, viscous liquid when combined. **METREGRIP 312 CLEAR** provides a product of exceptional high bond strength and quality which is simple to use.

**METREGRIP 312 CLEAR** is available in convenient kits and also in bulk packaging.

#### **DIRECTIONS FOR USE**

1. Measure out equal amounts of **METREGRIP 312 CLEAR BASE** and **METREGRIP 312 ACTIVATOR** into a suitable container for mixing.
2. Mix only as much adhesive as you can conveniently use in five minutes.
3. Apply to one surface of parts to be bonded. (Make sure adhesive is thoroughly mixed.)
4. Mate parts together for 5-7 minutes. (Very thin films may be held slightly longer.) Porous surfaces may require the adhesive to be applied to both surfaces before bonding.

#### **TYPICAL PROPERTIES\***

<u><b>UNCURED COMPONENTS</b></u>	<u><b>312 ACTIVATOR</b></u>	<u><b>312 CLEAR BASE</b></u>
Appearance and Physical Form	Amber syrup	Clear syrup
Specific Gravity, (77°F/25°C)	0.98 – 1.02	1.14 - 1.16
Viscosity @ 25°C, (cps)	15,000	9,000

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**TYPICAL PROPERTIES\* (Cont'd)**

**CURED METREG RIP 312 CLEAR**

<b><u>PROPERTY</u></b>	<b><u>VALUE</u></b>
Appearance	Translucent
Specific Gravity, 25°C	1.1
Flexural Modulus	3.0 x 10 <sup>4</sup>
Thermal Shock	Passes
Safe Operating Temperature, °C	-60 to 145
Glass Transition (Tg), °C	37
Coefficient of Thermal Expansion, ppm/°C	80 (Below Tg), 209 (Above Tg)
Water Absorption (%)	0.6
Dielectric Strength (V/mil)	370
Volume Resistivity (ohm-cm)	1.8 x 10 <sup>12</sup>
Dielectric Constant, 10 <sup>3</sup> Hz	3.43
Dissipation Factor, 10 <sup>3</sup> Hz	0.018

**BOND STRENGTHS, Tensile Shear (psi) at test temperature\*\***

<b><u>MATERIAL</u></b>	<b><u>77°F</u></b>
Aluminum - Aluminum	2600
Brass - Brass	1720
Steel - Steel (Cold Rolled)	2250
Copper - Copper	1650
Glass - Glass	(Glass fails before bond)
Rulon - Aluminum	750

**CLEAN-UP**

**METATERGE 1405** is recommended to replace hazardous solvents for general clean-up. **METATERGE 1405**, a unique water soluble resin detergent, dissolves uncured resin systems and renders them water compatible. Soiled equipment, tools or bench areas can then be simply cleaned with a wet sponge or shop rag.

**METASTRIP 701** is an effective non-corrosive stripping solvent for removing cured epoxy resins to salvage valuable electronic components.

**METASTRIP 705**, a highly active epoxy remover formulated for vigorous stripping of more chemically resistant cured encapsulating compounds, is more active and requires careful handling.

\*Properties listed are typical and are not intended as specification values. Users are urged to confirm test values in specific application.

\*\*Treated surfaces