

# INSTANT ADHESIVE GEL • MULTI-PURPOSE BONDING

PART NO. CA-GEL

## **DESCRIPTION**

CAGEL is a high-viscosity, rapid-curing, gel instant adhesive. It is designed to bond a wide range of similar and dissimilar materials. Handling strength in most applications is in 25 seconds with maximum gap filling properties.

#### **PHYSICAL PROPERTIES**

Technology / Base	Modified Ethyl			
Type of Product	Cyanoacrylate			
Components	One Component			
Curing	Humidity			
Appearance / Color	Colorless			
Consistency	Gel			

#### **TECHNICAL DATA**

Property	Value	Method/Condition							
Rheology									
Viscosity	75000 +/- 5000 cPs	Brookfield SP4 @ 25°C							
Density									
Specific Gravity	1.05	N/A							
Uncured Materials Characteristics									
Flash Piont Set Time Steel (sec) ABS (sec) EPDM (sec) Shelf Life	<20	N/A N/A N/A N/A							
Cured Materials Characteristics									
Full Cure Time Cure Appearance Service Temperature	24 hours Clear -55 to 95°C	N/A N/A N/A							
Cured Mechanical Properties									
See Graphs and Table									



#### **INSTRUCTIONS**

Surfaces to be bonded should be clean and dry. Dispense a drop or drops to one surface only. Apply only enough to leave a thin film layer after compression. Press parts together and hold firmly for a few seconds. Good contact is essential. An adequate bond develops in less than one minute and maximum strength is attained in 24 hours. Wipe off excess adhesive from the top of the container and recap. Products, if left uncapped, may deteriorate by contamination from moisture in the air. Because products cure by polymerization, whitening may appear on the surface of the container or the bonded materials. This will not affect adhesive performance. Factors affecting cure speed include gap size and humidity. Thin bond line results in faster cure speed. Larger gaps will lengthen cure speed. Cure and fixture times can be influenced by the humidity conditions at the time of assembly. The higher the RH the faster cure and fixture times will be. Fixture time data based on our testing is conducted at 50% relative humidity.

#### **CURING PERFORMANCE**

Ambient surface moisture initiates the curing process. Handling strength is reached in a short time, and will vary based on environmental conditions, bond line gap, and other factors. Product will continue to cure for at least 24 hours before full strength and solvent resistance is developed.

## **STORAGE**

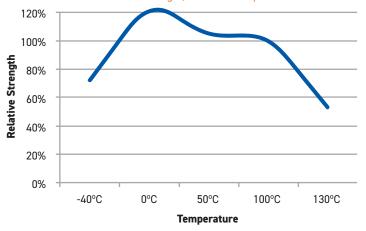
Containers should be stored in a cool, dry, dark area. Storage temperature  $15.5^{\circ}\text{C}$  -  $25^{\circ}\text{C}$  ( $60^{\circ}\text{F}$  -  $77^{\circ}\text{F}$ ), without exposure to direct light or heat. Do not refrigerate.

#### **SAFETY & DISPOSAL**

For safe handling information and disposal instructions on this product, consult the Safety Data Sheet (SDS).



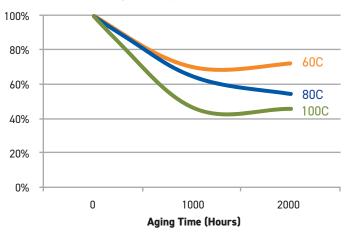
#### HOT STRENGTH %RT Strength, Tested at Temperature



#### SOLVENT RESISTANCE

Solvent	Resistance		
Alcohol	Excellent		
Ester (aromatic)	Excellent		
Ketone (aromatic)	Poor		
Aliphatic hydrocarbon (alkanes)	Good		
Aromatic hydrocarbons	Good		
Halogenated hydrocarbons	Poor		
Weak aqueous acid	Excellent (Poor if concentrated)		
Weak aqueous base	Excellent (Poor if concentrated)		

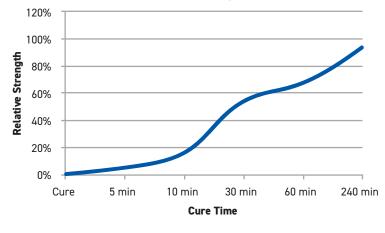
# **HEATING AGING** Aged at Temperature Indicated & Tested at 22°C



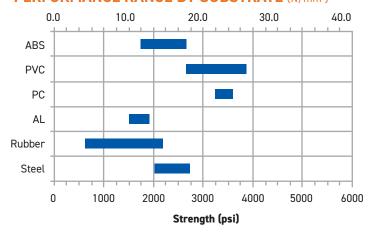
#### PERFORMANCE OF CURED ADHESIVE

Substrate	N/mm²			PSI				
Steel	13.8	to	18.8	2000	to	2730		
Rubber*	4.3	to	15.2	630	to	2200		
AL	10.4	to	13.2	1510	to	1920		
PC**	22.3	to	24.9	3240	to	3605		
PVC**	18.3	to	26.7	2660	to	3875		
ABS**	12.0	to	18.3	1740	to	2660		
*Rubber figures given are typical. Your results may vary by specific rubber type.								
**Tested to ASTM 4501	***n/r = not recommended							

# TIME UNTIL FULL CURE %RT Strength



# PERFORMANCE RANGE BY SUBSTRATE (N/mm²)



#### **DISCLAIMER**

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TDS - Instant Adhesive - CA-GEL - Updated 11-10-2021



