

**LOCTITE®**

CLASS C COMPONENTS

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ISO 9001 Certified Company  
[www.classccomponents.com](http://www.classccomponents.com)  
Quality • Service • Versatility

# Adhesives and Sealants For the Sign Industry

**DE DIVERSE**  
ELECTRONICS

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**Henkel**

## YOUR CHALLENGES

### PERFORMANCE / DURABILITY / RELIABILITY

- Bonding Thin Substrates
- Bonding Metals to Plastics
- Corrosion Prevention
- Weathertight / Dustproof Assemblies
- Strong / Permanent Assemblies
- Aesthetics
- Warranty Claims

### EFFICIENCY / COSTS

- Fast Production Times
- Minimizing WIP
- Minimizing Inventory
- Double-Sided Tape Material Cost
- Welding
  - Prep Time
  - Grinding Time
  - Cleaning Time
- Welding Capital Equipment and Materials
- Scrap and Damaged Goods

## HENKEL SOLUTIONS

- **Extensive Product Portfolio:**  
The right product for the application
- **High Gap Fill Materials:**  
Seal out the weather, relaxed design tolerances
- **Eliminate Mechanical Fasteners:**  
Eliminate drilling / tapping, galvanic corrosion, water leaks, panel bowing
- **Excellent Weather Resistance:**  
Long-term performance over life of sign
- **Products Supporting Health and Safety:**  
Reduced worker concerns, improved safety
- **Engineering Support:**  
Testing and development laboratories
- **High Adhesion Sealants:**  
Bonding with excellent long-term sealing

- **Fast Curing 2-Component Products:**  
Fixture time in minutes
- **Universal Bonders Work on Many Materials:**  
Products work on range of plastics and metals with minimal preparation required
- **Full Line of Pneumatic and Manual Dispensing Equipment for Operator Speed and Ease**
- **Highly Trained Field and Application Engineers:**  
Industry and technology competence including customer manufacturing line surveys
- **Value Engineering Analysis:**  
Lowest total cost
- **Slow, Medium, Fast Curing Products:**  
The right product for your process

# Universal Structural Bonders



- FAST TURNAROUND
- GOOD ON VERY THIN METALS AND PLASTICS
- LOW BLOOM / FROST
- EXCELLENT WEATHER RESISTANCE



CHEMISTRY	PRODUCT NAME	ATTRIBUTES
HY	LOCTITE® HY 4090™	Instant Adhesive / Structural Combination (CA/Epoxy), General-Purpose, Excellent Environmental and Temperature Resistance, Good Gap Filling, Environmentally and Health & Safety Worker Responsible, Available In Small and Larger Packages, High Peel Strength.
HY	LOCTITE® HY 4070™	Instant Adhesive / Structural Combination (CA/Acrylic), Ultra Fast Curing, Great for Low Surface Energy Plastics, Small Package Allows Precise Application, Health & Safety and Environmentally Responsible, Good Gap Fill.
MMA	LOCTITE® AA H8003™	High Strength Plastic and Metal Bonder, Very High Strength on Aluminum, Sandable, Powder Coatable, Mechanically Tough, Fast Curing, Plastic Bonding, Excellent Weather Resistance.
MMA	LOCTITE® AA H4710™	Ultra-Fast Cure Time, Aluminum Bonder, Mechanically Tough, Low Shrinkage, Fast Curing, Non-sag, Gap Filling, Powder Coatable.
MMA	LOCTITE® AA 3035™	Fast Cure Time, Polyolefin Plastic Bonder, No Primer Required, Low Surface Energy Plastics.
MMA	LOCTITE® AA H5004™	Fast Setting, Tough, Clear Adhesive, Excellent for Metal to Plastic and Fillet Bonding. Excellent for Channel Letter Assembly and Bonding Clear Plastics.
SMP	TEROSON® MS 939™	Flexible Bonding, High Shear Strength, High Elongation, 1-Component Moisture Cure.
SMP	TEROSON® MS 9399™	Flexible Bonding, High Shear Strength, High Elongation, 2-Component Fast Cure.
SMP	TEROSON® MS 5510™	Very Good Adhesion Yet Reworkable, 1-Component Moisture Cure, Very Good for Dissimilar Substrates.
SMP	TEROSON® MS 5555NA™	High Value, High Performance Single Component Sealant / Adhesive, 4 Times Stronger Adhesion than Silicones, Paintable, Excellent Weather Resistance.
SMP	TEROSON® MS 9380™	High Strength, Flexible Bonding and Sealing, Fast Curing.
PU	LOCTITE® UK U-09FL™	Flexible Adhesion, Medium Fixture Time, High Impact Strength.
EP	LOCTITE® EA E-05CL™	Fast Curing, High Strength, Clear, 5-Minute Work-Life.
CA	LOCTITE® 454™	General-Purpose Instant Adhesive, Clear, Non-Sag Gel.
LCA	LOCTITE® AA 3106™, AA 3525™, AA 3494™	Light Curing Acrylic Adhesive for Plastic-Plastic, Glass-Metal, Glass-Glass Respectively.
SI	TEROSON® SI 9160™	General-Purpose Value Sealant, Moisture Cure RTV, Available in Several Colors.

HY = Hybrid, MMA = Methylmethacrylate, SMP = Silane Modified Polymer, PU = Polyurethane, EP = Epoxy, CA = Cyanoacrylate, LCA = Light Curing Acrylic, SI = Silicone

# General-Purpose Structural Adhesive for Limitless Design

- Faster fixture high strength of an instant adhesive / toughness of an epoxy / acrylic structural adhesive
- Multi-substrate performance
- Excellent gap filling ability
- High humidity resistance
- Health and safety / environmentally responsible; nonflammable, low odor

MAJOR SIGN APPLICATIONS				WORK TIME	FIXTURE TIME	FULL CURE	COLOR
METAL FRAME AND BOX ASSEMBLY	CHANNEL LETTER ASSEMBLY	CHANNEL LETTER FACING ASSEMBLY	FLAT CUT-OUT LETTER BONDING				
✓	✓			3-5 minutes	180 seconds	7 days	Off-White
✓	✓		✓	3-4 minutes	<1 minutes	7 days	Transparent-Cloudy / Pale Yellow
✓	✓			4-5 minutes	10-12 minutes	24 hours	Green
✓	✓		✓	9 minutes	2-3 minutes on aluminum	72 hours	Grey
		✓	✓	7 minutes	<20 minutes on HDPE	72 hours	Off-White
	✓	✓	✓	1.5 minutes	<3 minutes	24 hours	Clear
✓	✓		✓	3-12 minutes	4 hours	7 days	White, Grey, Black
✓	✓		✓	3-12 minutes	1.5-3 hours	7 days	White, Black
✓	✓		✓	5-50 minutes	4 hours	7 days	White, Black, Clear, Grey
✓	✓		✓	20 minutes	4 hours	24-72 hours	Black, White, Grey
✓	✓		✓	4-10 minutes	4 hours	7 days	White, Grey, Black
✓	✓		✓	10 minutes	120 minutes	5 days	Clear
	✓	✓		3-5 minutes	15 minutes	24 hours	Clear
	✓	✓	✓	N/A	<10 seconds	24 hours	Clear
	✓	✓		Unlimited*	<5 seconds	<5 seconds	Clear, Clear, Light Straw
✓	✓	✓		15 minutes	24 hours	72 hours	Black, Clear, White

# Benefits of Adhesives / Sealants in Sign Construction / Installation

- Join Dissimilar Substrates
- Distribute Stresses Evenly
- Fill Large Gaps
- Seal and Bond
- Neat Appearance
- Reduce Labor Costs (welding vs. general labor)
- Prevent Galvanic Corrosion
- Absorb Energy
- Eliminate Weld Read-Through
- Aesthetics – Looks Better



## Application Areas

### ▼ METAL FRAME AND BOX ASSEMBLY



### ▼ CHANNEL LETTER ASSEMBLY



### ▼ CHANNEL LETTER FACING ASSEMBLY



### ▼ FLAT CUT-OUT LETTER BONDING

