

LOCTITE[®]

Adhesives and Sealants For the Sign Industry



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. |

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



LOCTITE®

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