WE ARE THE ADHESIVE EXPERTS FOR ANY APPLICATION

WE SELL THE COMPLETE PACKAGE FOR YOUR SIGN & STRUCTURAL ADHESIVE NEEDS

- Abrasives
- Adhesives
- Dispensing Guns
- Sealants
- Silicones
- Tapes
- No-Drill Bonding Fasteners™

Order online at www.chemical-concepts.com or call 1.800.220.1966
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Why Buy?</td>
<td>3</td>
</tr>
<tr>
<td>Channel Letter Fabrication</td>
<td>4-5</td>
</tr>
<tr>
<td>Lord Signlok or Maxlok™ adhesives</td>
<td>4</td>
</tr>
<tr>
<td>How to Build Channel Letters</td>
<td>5</td>
</tr>
<tr>
<td>Lord Adhesive Sign Selector Guide</td>
<td>6-7</td>
</tr>
<tr>
<td>Structural Adhesives</td>
<td>8-12</td>
</tr>
<tr>
<td>Lord Signlok</td>
<td>8</td>
</tr>
<tr>
<td>Lord Acrylics</td>
<td>9</td>
</tr>
<tr>
<td>Lord Epoxies and Urethane adhesives</td>
<td>10</td>
</tr>
<tr>
<td>Lord 400 &amp; 7500 Series adhesive to use with channel lettering</td>
<td>11-12</td>
</tr>
<tr>
<td>Potting and Encapsulating Applications</td>
<td>13</td>
</tr>
<tr>
<td>Electronics</td>
<td>13</td>
</tr>
<tr>
<td>Flat Panel Display</td>
<td>13</td>
</tr>
<tr>
<td>LED Video Display</td>
<td>13</td>
</tr>
<tr>
<td>LED Lighting—A New Way to Produce</td>
<td>14</td>
</tr>
<tr>
<td>Adhesive Sealants</td>
<td>15</td>
</tr>
<tr>
<td>Acetoxy cure silicones</td>
<td>15</td>
</tr>
<tr>
<td>Neutral cure silicones</td>
<td>15</td>
</tr>
<tr>
<td>Two component styrene free solvent</td>
<td>15</td>
</tr>
<tr>
<td>Hybrid Sealants</td>
<td>16</td>
</tr>
<tr>
<td>Epoxies/Acrylics</td>
<td>17</td>
</tr>
<tr>
<td>Aerosols and Pressure Sensitive Adhesives</td>
<td>18</td>
</tr>
<tr>
<td>Contact Adhesives</td>
<td>18</td>
</tr>
<tr>
<td>High Bond Tapes</td>
<td>19-20</td>
</tr>
<tr>
<td>General Assembly &amp; Masking Tapes</td>
<td>21</td>
</tr>
<tr>
<td>Foam Tapes</td>
<td>22</td>
</tr>
<tr>
<td>Tape Information</td>
<td>23</td>
</tr>
<tr>
<td>Panel Letter Mounting</td>
<td>23</td>
</tr>
<tr>
<td>LED Mounting</td>
<td>23</td>
</tr>
<tr>
<td>General Assembly</td>
<td>24</td>
</tr>
<tr>
<td>Masking</td>
<td>24</td>
</tr>
<tr>
<td>tesa® ACX Plus chart</td>
<td>25</td>
</tr>
<tr>
<td>Sanders, Abrasives and Pads</td>
<td>26</td>
</tr>
<tr>
<td>Hot Melts</td>
<td>27</td>
</tr>
<tr>
<td>Dispense Guns and Mixers</td>
<td>28-29</td>
</tr>
<tr>
<td>Chem-Set™ KEEP-NUT™</td>
<td>30</td>
</tr>
<tr>
<td>Chem-Set™ No Drill Fasteners</td>
<td>31-35</td>
</tr>
<tr>
<td>TYPE MI Male Bolt Studs</td>
<td>32</td>
</tr>
<tr>
<td>FTYPE F1 Hex Nuts</td>
<td>33</td>
</tr>
<tr>
<td>TYPE F2 Female Collars</td>
<td>34</td>
</tr>
<tr>
<td>Specialty Items</td>
<td>35</td>
</tr>
</tbody>
</table>
Buy from the Adhesive Innovators not the Imitators!

Rely on the Adhesive Experts... with answers to your questions based on over 30 years of experience of selling to the sign market.

WHY BUY YOUR ADHESIVES AND SUPPLIES FROM CHEMICAL CONCEPTS?

Our experience is unlike any other general distributor. We focus on adhesives, adhesive systems, and adhesive applications. Using adhesives successfully requires more than just buying the right tube of glue. Proper surface preparation, application methods, fixturing, etc, will determine the difference between 100% success or application failure. We deliver everything you need to get the job done right, including free consultation on special applications.

The track record of Chemical Concepts results from over 50 years of servicing industry markets. Not only do we know adhesives, we know your requirements.

Our stock is fresh. We order more adhesives in one month than a general distributor orders in a year. Plus we have industrial refrigeration in our warehouse to ensure peak product freshness. Our products will never be out of date or improperly stored.

Rely on the Adhesive Experts—with answers to your questions based on our 40+ years of experience servicing fabrication markets.

Top Represented Manufacturers. Learn why our customers continue to stick with us!
Channel Letter Fabrication

Chem-Set™ CHANNEL LETTERING STARTER KIT

Lets Get Started. What You Will Need.
Signlok or Maxlok™ Series

LORD Structural Adhesives
Two Part Acrylic Adhesive
Metal Bonding Adhesives: Replaces Welding

520 Dual-Component Gun
• 18:1 Thrust Ratio
• Converts in Just Seconds with Snap In/Snap Out Push Disks
• Patented Cartridge Stabilizing Plate for Extra Support
• Extra Durable, Heat Treated Piston Rod
• Easy Release Star-Burst Reverse Gripping Plate
• Zinc Alloy Handle

CCH220 Hot Melt Gun
• 220 Watts of Power
• For use with 1/2' diameter sticks
• Complete with stand, on/off switch and adjustable thermostat

HM612 Hot Melt Adhesive
• For use with the CCH220 gun
• Bonds to metal
• Holds parts in place as LORD product cures
• Full cure in 5 minutes
• Will not get brittle
• One stick will cover 4 linear feet
Channel Letter Fabrication

HOW TO BUILD CHANNEL LETTERS
The key to a successful channel letter is having the proper tools and using a reliable structural adhesive. We have found the best adhesives for a long lasting bond are Lord Acrylic Adhesives used in conjunction with our HM612 Hot Melt Sticks and CCH220 Hot Melt Gun.

Sheet Metal: Cut and bend sheet metal into the appropriate shape.
Tack: Use the HM612 Hot Melt Sticks as a clamping or tackdown device while forming the letter. Use the CCH220 Hot Melt Gun with glue sticks.
Assemble: Use Signlok 406 “UL” approved adhesive/sealant around the seams in lieu of welding.

Advantage / Benefits
• Less skilled labor
• Less energy costs
• Thinner gauge metal - more choices
• NO rust
• NO grinding
• NO welding
• Metal costs savings

INSTALLING CHANNEL LETTERS
Adhesives can also be used for the installation of channel letters and other types of signs on to a wall. First, surface-mount fasteners are bonded to the backs of the letters or sign. These replace the need for drilling or stud welding. Next, threaded rods of the desired length are attached to the studs. A thread-locking material can be used for additional strength. Holes are drilled into the wall and filled with an epoxy or anchoring adhesive. While 100 percent silicone adhesives have sometimes been recommended for this type of application, it is better to select a true structural adhesive. Finally, the sign is placed on the wall, pushing the threaded rods into the adhesive in the drill holes. The backs of the channel letters can either be installed flush to the wall surface or set out using standoffs for consistent spacing from the wall. It will be necessary to temporarily secure the sign with tape or other means while the adhesive fully cures. For indoor sign installations with lighter loads, double-sided acrylic foam tapes can be used. Installation is easy and the foam tape provides an excellent bond with a clean appearance. It is particularly well-suited for joining dissimilar materials, as the malleable foam allows for differences in thermal expansion in the joint.
### LORD® Selector Guide

<table>
<thead>
<tr>
<th>ALUMINUM/STEEL*</th>
<th>PREFINISHED METAL</th>
<th>POLYCARBONATE*</th>
<th>ACRYLIC*</th>
<th>URETHANE FOAM</th>
<th>PVC FOAM BOARD</th>
<th>CERAMIC/STONE</th>
<th>WOOD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Maxlok 320/322†</td>
<td>Maxlok 320/322†</td>
<td>7550*</td>
<td>7542</td>
<td>7545</td>
<td>N/A</td>
<td>7542</td>
</tr>
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<td>7550*</td>
<td>7542</td>
<td>7545</td>
<td>N/A</td>
<td>7542</td>
</tr>
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<td>N/A</td>
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<td>7545</td>
<td>7545</td>
<td>7545</td>
<td>7545</td>
<td>7542</td>
</tr>
<tr>
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<td>N/A</td>
<td>7542</td>
<td>7545</td>
<td>7545</td>
<td>7545</td>
<td>7545</td>
<td>7542</td>
</tr>
<tr>
<td>TRIMCAP</td>
<td>Maxlok 4xx/19</td>
<td>Maxlock 4xx/19</td>
<td>7550*</td>
<td>7550*</td>
<td>7542</td>
<td>7545</td>
<td>7545</td>
</tr>
<tr>
<td>URETHANE FOAM</td>
<td>7660</td>
<td>7545</td>
<td>7545</td>
<td>7545</td>
<td>7545</td>
<td>7545</td>
<td>7542</td>
</tr>
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<td>Maxlock 4xx/19</td>
<td>7542</td>
<td>7545</td>
<td>7545</td>
<td>7545</td>
<td>7542</td>
</tr>
<tr>
<td>CERAMIC/STONE</td>
<td>320/322†</td>
<td>320/322†</td>
<td>7610EZ*</td>
<td>7610EZ*</td>
<td>7610EZ*</td>
<td>7610EZ*</td>
<td>7542</td>
</tr>
<tr>
<td>WOOD</td>
<td>N/A</td>
<td>7542</td>
<td>7545</td>
<td>7545</td>
<td>7545</td>
<td>7545</td>
<td>7542</td>
</tr>
<tr>
<td>CURED CONCRETE</td>
<td>7610</td>
<td>320/322</td>
<td>7610EZ</td>
<td>N/A</td>
<td>7610EZ*</td>
<td>7610EZ*</td>
<td>7542</td>
</tr>
<tr>
<td>GLASS</td>
<td>Maxlok 4xx/19</td>
<td>Maxlok 4xx/19</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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</tr>
</tbody>
</table>

**xx** – Represents numbers for the family of adhesives to be utilized. Contact LORD Customer Support Center.

**N** – For non-structural bonding (assemblies where adhesive is used for aesthetic attachment in minimum stress areas).

* – Coefficient of thermal expansion is a major consideration when cross-bonding these substrates. Acrylic adhesives should not be used to attach large thermoplastic parts due to the differences in thermal expansion.

† – Prepare metal by scuffing/abradng followed by a solvent wipe.

**NOTE:** LORD 406/19, 403/19, and 7542 are all UL recognized.
## LORD® Selector Guide

<table>
<thead>
<tr>
<th>SUBSTRATE CLASS</th>
<th>SUBSTRATE TRADENAME**</th>
<th>SUBSTRATE SUPPLIER</th>
<th>SUBSTRATE PREP</th>
<th>LORD ADHESIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACRYLIC SHEET</td>
<td>Acrylite®</td>
<td>Everlone Cyro</td>
<td>Scuff</td>
<td>LORD 7545 or 7542, Maxlok</td>
</tr>
<tr>
<td></td>
<td>Acrysteel® IGP</td>
<td>Anitech Acrylics</td>
<td>Scuff</td>
<td>LORD Maxlok, 4xx/19, 7545 or 7542</td>
</tr>
<tr>
<td></td>
<td>Duraplex®</td>
<td>Plaskolite</td>
<td>Scuff</td>
<td>LORD Maxlok, 4xx/19, 7545 or 7542</td>
</tr>
<tr>
<td></td>
<td>Optix® SG</td>
<td>Plaskolite</td>
<td>Scuff</td>
<td>LORD Maxlok, 4xx/19, 7545 or 7542</td>
</tr>
<tr>
<td></td>
<td>Implex®</td>
<td>Arkema</td>
<td>Scuff</td>
<td>LORD Maxlok, 4xx/19, 7545 or 7542</td>
</tr>
<tr>
<td></td>
<td>Plexiglas® G</td>
<td>Arkema</td>
<td>Scuff</td>
<td>LORD Maxlok, 4xx/19, 7545 or 7542</td>
</tr>
<tr>
<td>ALUMINUM</td>
<td>—</td>
<td>—</td>
<td>SW</td>
<td>LORD 4xx/19</td>
</tr>
<tr>
<td>PAINTED ALUMINUM</td>
<td>Alumacorr™</td>
<td>Nudo Products</td>
<td>Scuff</td>
<td>LORD Maxlok, 4xx/19, 7545 or 7542</td>
</tr>
<tr>
<td></td>
<td>NuAlum™</td>
<td>Nudo Products</td>
<td>Scuff</td>
<td>LORD Maxlok, 4xx/19, 7545 or 7542</td>
</tr>
<tr>
<td></td>
<td>Poly-Metal™</td>
<td>Nudo Products</td>
<td>Scuff</td>
<td>LORD Maxlok, 4xx/19, 7545 or 7542</td>
</tr>
<tr>
<td></td>
<td>Alumalite™</td>
<td>Nudo Products</td>
<td>Scuff</td>
<td>LORD Maxlok, 4xx/19, 7545 or 7542</td>
</tr>
<tr>
<td></td>
<td>DiBond®</td>
<td>Laminators Inc.</td>
<td>DRW/Scuff</td>
<td>LORD Maxlok, 4xx/19, 7545 or 7542</td>
</tr>
<tr>
<td></td>
<td>Ecorolite®</td>
<td>Laminators Inc.</td>
<td>SW</td>
<td>LORD Maxlok, 4xx/19, 7545 or 7542</td>
</tr>
<tr>
<td></td>
<td>MAXX™</td>
<td>Amerimax Building Products</td>
<td>SW</td>
<td>LORD Maxlok, 4xx/19, 7545 or 7542</td>
</tr>
<tr>
<td></td>
<td>Alucobond®</td>
<td>3A Composites</td>
<td>SW</td>
<td>LORD Maxlok, 4xx/19, 7545 or 7542</td>
</tr>
<tr>
<td></td>
<td>Anodized Alucobond®</td>
<td>3A Composites</td>
<td>SW</td>
<td>LORD Maxlok, 4xx/19, 7545 or 7542</td>
</tr>
<tr>
<td>PAPER/FOAM BOARD</td>
<td>Foam-X® Recovery</td>
<td>3A Composites</td>
<td>DRW</td>
<td>LORD 7545, 7542 or 7650</td>
</tr>
<tr>
<td></td>
<td>Fome-Cor®</td>
<td>3A Composites</td>
<td>DRW</td>
<td>LORD 7545, 7542 or 7650</td>
</tr>
<tr>
<td>PETG SHEET</td>
<td>Spectra® PETG</td>
<td>Eastman Chemical Company</td>
<td>DRW</td>
<td>LORD Maxlok, 4xx/19, 7545 or 7542</td>
</tr>
<tr>
<td>POLYCARBONATE SHEET</td>
<td>Lexan®</td>
<td>General Electric</td>
<td>DRW</td>
<td>LORD 7550 (Cosmetic/on-structural)</td>
</tr>
<tr>
<td></td>
<td>Tufitek®</td>
<td>Bayer MaterialScience</td>
<td>DRW</td>
<td>LORD Maxlok, 4xx/19, 7545 or 7542</td>
</tr>
<tr>
<td>POLYSTYRENE FOAM BOARD</td>
<td>Gatorfoam®</td>
<td>3A Composites</td>
<td>DRW</td>
<td>LORD 7545, 7542, 7650 or 7610EZ</td>
</tr>
<tr>
<td></td>
<td>Gatorblanks®</td>
<td>3A Composites</td>
<td>DRW</td>
<td>LORD 7545, 7542, 7650 or 7610EZ</td>
</tr>
<tr>
<td></td>
<td>Ultra</td>
<td>United Industries</td>
<td>SW</td>
<td>LORD 7545, 7542, 7650 or 7610EZ</td>
</tr>
<tr>
<td>EXPANDED PVC/FOAM BOARD</td>
<td>Komatex®</td>
<td>Kommerling USA, Inc.</td>
<td>Scuff</td>
<td>LORD Maxlok, 4xx/19, 7545 or 7542</td>
</tr>
<tr>
<td></td>
<td>Sintra®</td>
<td></td>
<td>Scuff</td>
<td>LORD Maxlok, 4xx/19, 7545 or 7542</td>
</tr>
<tr>
<td>VINYL LAMINATE</td>
<td>White-Wood®</td>
<td>Nudo Products</td>
<td>DRW/Scuff</td>
<td>LORD 7550, 7542 or 4xx/19</td>
</tr>
<tr>
<td></td>
<td>Maxx-Board®</td>
<td>Amerimax Building Products</td>
<td>SW</td>
<td>LORD Maxlok, 4xx/19, 7545 or 7542</td>
</tr>
<tr>
<td>TRIMCAP</td>
<td>Jewelite®</td>
<td>Wagner Zip-Change, Inc.</td>
<td>SW/Scuff</td>
<td>LORD 7550</td>
</tr>
<tr>
<td></td>
<td>SignATrim™</td>
<td>Transco</td>
<td>SW/Scuff</td>
<td>LORD 7550</td>
</tr>
<tr>
<td>HIGH DENSITY URETHANE FOAM</td>
<td>Precision Board</td>
<td>Coastal Enterprises, Inc.</td>
<td>DRW</td>
<td>LORD 7542, 7545, 7610EZ or 7650</td>
</tr>
<tr>
<td></td>
<td>Last-A-Foam®</td>
<td>General Plastics Mfg. Co.</td>
<td>DRW</td>
<td>LORD 7542, 7545, 7610EZ or 7650</td>
</tr>
<tr>
<td></td>
<td>Sign Foam 3®</td>
<td>Sign Arts Products Corp.</td>
<td>DRW</td>
<td>LORD 7542, 7545, 7610EZ or 7650</td>
</tr>
<tr>
<td></td>
<td>Design Board®</td>
<td>Jasper Plastics</td>
<td>DRW</td>
<td>LORD 7542, 7545, 7610EZ or 7650</td>
</tr>
<tr>
<td>CERAMIC/STONE</td>
<td>—</td>
<td>—</td>
<td>DRW</td>
<td>LORD 7542, 7545, 7610EZ or 7650</td>
</tr>
<tr>
<td>WOOD</td>
<td>—</td>
<td>—</td>
<td>DRW</td>
<td>LORD 7542, 7545, 7610EZ or 7650</td>
</tr>
</tbody>
</table>

xx - Represents numbers for the family of adhesives to be utilized. Contact LORD Customer Support Center.

NOTE: “DRW” means dry rag wipe. This preparation process simply cleans dust from a surface. “Scuff” means to use an abrasive pad to lightly rub the surface of the substrate. This roughens the surface slightly, improving adhesion. “SW” means solvent wipe with isopropyl alcohol. Contact a LORD representative for recommendations.

Each substrate and adhesive should be tested for the specific use in which it will be expected to perform. The information reported here is from laboratory studies and is intended only to provide general information regarding the ability of material to be bonded with LORD® Structural Adhesives. Other substrates or grades of substrates from these and other suppliers may not have been evaluated for adhesion. If you need to bond a substrate that is not on this list, call your substrate supplier or LORD Customer Support Center.

** All substrate tradenames are trademarks or registered trademarks of the substrate supplier.
LORD® Structural Adhesives

**LORD® Signlok 810**

*Elevate your metal and metal composite designs!*

Bond thin gauge metal materials with no bond-line read-through or surface distortion with LORD® Signlok 810 Adhesive.

**Design Flexibility with Uncompromised Aesthetics**

- Designed for aluminum composite materials and bonds thin-gauge metal-to-metal and metal-to-composites/plastics
- No bond-line read-through or surface distortion
- **Flexible, low exotherm, low shrinkage**
- Glass beads for precise bond-line control
- Non-sagging
- UL Approved
- 180% elongation

**Optimize Production & Costs**

- 90% full cure within one hour
- Minimal surface preparation required
- New packaging fits most jobs and eliminates waste
- Two mixing tips included with each cartridge to control cost

**LORD® Signlok 400 Series**

*Versatile, Durable and Convenient Solutions*

Control costs, reduces waste, enhance productivity and performance with LORD® Signlok 400 Series Adhesives

**Features & Benefits**

- Durable enough to replace welds, rivets and other mechanical fastening methods
- Available in a range of work times accommodating a variety of process requirements
- Right size packaging fits most jobs and eliminates waste
- **18 MONTH SHELF LIFE;** reduces cost of discarding out-of-date material
- **CONTAINS GLASS BEADS** to enable precision bond-line control and manage waste
Acrylic Adhesives

**LORD Maxlok (MX/T3, MX/T6, MX/T18)**

**LORD 400 Series (403/19, 406/19, 410/19)**

**LORD 200 Series (201/19, 204/19, 206/19)**

- Little to no surface prep
- PVC
- Bare Metal
- Painted Metal
- Fiberglass
- Acrylic
- Glass

**Standard bearer in metal bonding**
For metal and cross bonding.

---

**LORD® 406/19**
Two Part Epoxy Adhesive

- Bonds unprepared metals with minimal substrate preparation
- Engineered thermoplastics including XENOY®
- Polycarbonate
- ABS
- Acrylics
- Non Sag

Replace welding, brazing, riveting and other mechanical fastening methods.

---

**LORD® 201/19**
Two Part Epoxy Adhesive

- Bonds unprepared metals with minimal substrate preparation
- Engineered thermoplastics including XENOY®
- Polycarbonate
- ABS
- Acrylics
- Non Sag
- Time to Handling Strength, 12-16 min @ 75°F (24°C)

Replace welding, brazing, riveting and other mechanical fastening methods. Bonds a wide variety of substrates such as metals, ceramics and plastics; insensitive to minor deviations from correct mix ratio.

- variable cure rates available
- Hi-temperature resistance: up to 400° F

See our complete line of LORÐ® products @ chemical-concepts.com
LORD® Structural Adhesives

LORD® 310 A/B
Two Part Epoxy Adhesive
- Stone
- High and low temp resistance; -40°F to 400°F
- Concrete
- General Purpose
- Bare metal to HDU • Bare metal to wood
The ideal anchoring adhesive for stud mounting and bonding metal to porous (wood, concrete, stone).

LORD® 7542† and 7545†
Two Part Urethane Adhesive
- HDU (Sign Foam) • PVC • Wood • Fiberglass
- Painted Metal • Polycarbonate
For use when bonding composites and dissimilar substrates.

LORD® 7550 A/C
Two Part Urethane Adhesive
- HDU • PVC • Wood • Fiberglass
- Painted Metal • Polycarbonate • UV resistant
Great for Trim Cap and plastic bonding.

†variable cure rates available   * Hi-temperature resistance: up to 400°F

See our complete line of LORD® products @ chemical-concepts.com
400 Series

METAL BONDING AND CROSS BONDING METALS TO PLASTICS AND OTHER MATERIALS

The most versatile adhesive for the sign shop, the UL-approved 400 series can be used to replace welding, brazing, riveting and other mechanical fastening methods, outperforming these fasteners in harsh environments. For these reasons, the 400 series is frequently used for adding structural reinforcing members inside the sign box and building channel letters. Unleash your creativity and reduce your costs by using thinner gauge metals, prepainted substrates and engineered plastics in various combinations.

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>SPEED</th>
<th>WORK TIME (75°F/24°C)</th>
<th>HANDLINE TIME (75°F/24°C)</th>
<th>CURING COLOR</th>
<th>SUBSTRATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>LORD 403/19</td>
<td>Fast</td>
<td>2–4 min</td>
<td>4–6 min</td>
<td>Light Green</td>
<td>Bare Metals – Aluminum, Steel, Stainless Steel</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Aluminium Composite Panel (ACP) / Aluminium Composite Material (ACM)</td>
</tr>
<tr>
<td>LORD 406/19</td>
<td>Medium</td>
<td>6–10 min</td>
<td>12–17 min</td>
<td>Light Green</td>
<td>Painted Metals</td>
</tr>
<tr>
<td>LORD 410/19</td>
<td>Slow</td>
<td>20–45 min</td>
<td>1–2 hrs</td>
<td>Light Green</td>
<td>Acrylic Metals</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>PETG Sheet</td>
</tr>
</tbody>
</table>

See Signlok page 8.

Scan the QR code to watch a video to learn how to build a sign box.

METAL FRAME ASSEMBLY

1. Clean parts.
2. Assemble frame.
3. Fixture with tape and check for square.
4. Apply adhesive.

CHANNEL LETTER ASSEMBLY

1. Route ACM for sign face or back, bend channel sides and clean all bond areas.
2. Fixture channel sides to the ACM.
3. Apply LORD 400 series adhesive.
4. Tool and let stand until cured.

OTHER USES

Bond studs for reverse lit applications.
Reinforce butt joints or other high stress areas.
Bond simple square profiles for rigidity.

No-Mix Series

INDEFINITE OPEN TIME FOR LARGE APPLICATIONS OF METALS AND OTHER MATERIALS

No-Mix adhesive components, also known as “honeymoon” adhesives, are applied on the opposite mating surfaces of the substrates to be bonded. Curing does not start until the parts are brought together. This assembly technique is especially good for large surfaces with tight tolerances, such as mounting a sign face. These adhesives are to be used at bondline thicknesses 20 mils or less.

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>SPEED</th>
<th>WORK TIME (75°F/24°C)</th>
<th>HANDLINE TIME (75°F/24°C)</th>
<th>CURING COLOR</th>
<th>SUBSTRATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>LORD 201 (FLOWABLE)</td>
<td>Indefinite</td>
<td>6–8 min</td>
<td>12–16 min</td>
<td>Green</td>
<td>Acrylic Sheet</td>
</tr>
<tr>
<td>LORD 204 (NON-SAG)</td>
<td>Indefinite</td>
<td>6–8 min</td>
<td>12–16 min</td>
<td>Green</td>
<td>Bare Metals – Aluminum, Steel</td>
</tr>
<tr>
<td>MAXLOK™ T6 (HIGH PEEL)</td>
<td>Indefinite</td>
<td>6–8 min</td>
<td>12–16 min</td>
<td>Off-white</td>
<td>Stainless Steel</td>
</tr>
<tr>
<td>LORD ACCELERATOR 4</td>
<td></td>
<td>flashes in 1 min</td>
<td>N/A</td>
<td></td>
<td>Aluminium Composite Panel (ACP) / Aluminium Composite Material (ACM)</td>
</tr>
<tr>
<td>(MUST BE USED ON ONE SIDE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Painted Metals</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>PETG Sheet</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Polycarbonate Sheet</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Polystyrene Foam Board</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Expanded PVC Foam Board</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Vinyl Laminate</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>High Density</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Urathane Foam</td>
</tr>
</tbody>
</table>
7500 Series

PLASTIC BONDING AND CROSS BONDING DIFFERENT TYPES OF PLASTICS AND OTHER MATERIALS

For a optically clear bonding, gap filling or bonding wood or other porous substrates, the 7500 series offers tough, flexible adhesives in a variety of speeds. The 7550 A/C is the perfect choice for bonding trimcap materials to polycarbonate faces.

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>SPEED</th>
<th>WORK TIME (75°F/24°C)</th>
<th>HANDLINE TIME (75°F/24°C)</th>
<th>CURED COLOR</th>
<th>SUBSTRATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>LORD 7550 A/C</td>
<td>Fast</td>
<td>2–4 min</td>
<td>4–6 min</td>
<td>Optically Clear</td>
<td>Acrylic Sheet, Painted Metals, Paper/Foam Board, PETG Sheet, Polycarbonate Sheet, Wood</td>
</tr>
<tr>
<td>LORD 7542 A/B</td>
<td>Medium</td>
<td>6–10 min</td>
<td>12–17 min</td>
<td>Brown</td>
<td>Polystyrene Foam Board, Expanded PVC Foam Board, Vinyl Laminate, High Density Urethane Foam</td>
</tr>
</tbody>
</table>

Scan the QR code to watch a video to learn how to build a sign box.

CHANNEL LETTER FACE ASSEMBLY

1. Heat trim cap.
2. Position letter face and trim cap.
3. Apply adhesive.
4. Clamp and let stand until cured.

LORD STRUCTURAL ADHESIVES ARE AVAILABLE IN A CONVENIENT VARIETY OF SIZES

(IMAGES BELOW ARE NOT TO SCALE)

CCH50G
MANUAL 50 ML CARTRIDGE DISPENSING GUNS
Mixer - 190-620

DM200
MANUAL 200 ML CX CARTRIDGE DISPENSING GUNS
Mixer - 160-824

535XSP
MANUAL 375 ML CARTRIDGE DISPENSING GUNS
Mixer - MCQ08-24T

CCM380
MANUAL 405 ML CX CARTRIDGE DISPENSING GUNS
Mixer - 160-824
Potting and Encapsulating Applications

**Electronics:** Chem-Set. potting and encapsulating line provide a protective barrier against moisture and environmental contaminants.

- Low viscosity products allow for easy pouring and potting around complex parts
- Conductive technology for thermal management
- High durometer with low modulus technology is available to minimize CTW strain
- Excellent shock and vibration resistance
- Variety of both room temperature and heat curing materials
- Adhesions available to obtain primerless adhesion to many substrates
- Withstand extreme temperatures from -55°C to 204°C or -67°C to 400°C

**Flat Panel Display:** Chem-Set. offers a series of optically clear silicones to help bond glass and plastics to flat panel and LCD displays.

- UV resistant
- Non-yellowing catalyst systems are available
- Pigmentable to provide contrast enhancement
- Various bonding strengths from removable/repairable to permanent
- Protects components from harsh environmental factors
- Gel interlayer for glare reduction

**LED Video Display:** Potting and encapsulating line provide a protective barrier against moisture and environmental contaminants.

- UL listed grades are available (See our UL Rating File Number QMFZ2,E205830)
- Encapsulants with high refractive indices are available to yield higher light outputs.
- Non-yellowing catalyst systems are available
- Self-bonding grades available
- Low viscosity flow easily around complex parts to minimize air entrapment
- Lower risk for delamination from CTE mismatch
- Withstand extreme temperatures from -55°C to 204°C or -67°C to 400°C
- Thermally conductive grades are available

**LED Lighting:** Temperature resistant, optically clear silicones can be applied over surface mount LEDs and are designed to be mixed with either diffusants or whitening agents if required.

- Higher refractive indexes to facilitate a brighter and longer lasting light
- Non-yellowing catalyst systems are available
- Low viscosity to flow around complex parts and minimize air entrapment
- Excellent thermal stability
- Self-bonding grades available.
- UL listed grades available (See our UL Rating File Number QMFZ2,E0005830)
LEARN A NEW WAY TO PRODUCE “LED LIGHTING”

LED Potting and Encapsulants

• UV resistant
• Non-corrosive
• Odorless
• Moisture protection
• Self healing and repairable
• Room temperature cure
• Offered in side x side cartridges 50MLs to 1500MLs
• Operating temp -55°C to 204°C (-67°F to 400°F)

<table>
<thead>
<tr>
<th>Color</th>
<th>Durometer</th>
<th>Ratio</th>
<th>Self Leveling</th>
<th>Gel Time</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Optically Clear</strong></td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td><strong>412 LED Compound</strong></td>
<td>Electronics, Flat Panel Display, LED Video Display</td>
<td>40, Shore A</td>
<td>1.1</td>
<td>28 min</td>
</tr>
<tr>
<td><strong>Optically Clear</strong></td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td><strong>033 GEL</strong></td>
<td>Electronics, General Purpose, Healthcare, LED Video Display</td>
<td>45, Shore 00</td>
<td>1.1</td>
<td>70 min</td>
</tr>
<tr>
<td><strong>Black</strong></td>
<td>Electronics, Lighting, Power Supplies, Solar</td>
<td>45, Shore A</td>
<td>1.1</td>
<td>140 min</td>
</tr>
<tr>
<td><strong>White</strong></td>
<td>Aerospace, Electronics, Power Supplies</td>
<td>40, Shore A</td>
<td>10.1</td>
<td>45 min</td>
</tr>
</tbody>
</table>

Applications:

- **412 LED Compound**
- **033 GEL**
- **355**
- **04**
Adhesive Sealants

Acetoxy cure silicones
Acetoxy cure silicones have high elasticity and are extremely tough in extreme low and high temperature settings. Silicones also have the highest rated index for UV resistance, which is critical to many commercial and residential applications where sealant exposure is critical. Key characteristics include: non-yellowing, non-flammable, excellent weatherability, and resistance to mildew.

**Bondaflex 100**
General purpose, one-component, 100% RTV acetoxy silicone sealant.
- Colors: white, translucent, trans-white, glacier white, bone and cameo

**Chem-Set™ RTV 4500**
General purpose, one-component, 100% RTV acetoxy silicone sealant.
- Colors: clear, trans/charcoal, trans/blue, trans/gray, trans/white, trans/beige, trans/green, trans/rose, trans/brown, trans/earhtone, white, almond, taupe, cameo/biscuit, gray, orchid, mexican sand, sandbar, rock creek

Neutral cure silicones
Neutral cure silicones are in the same family tree as acetoxy silicones. While retaining those properties, neutral cures have added capabilities such as being non-corrosive, low odor, greater permanent flexibility and capacity for movement. Neutral cures offer a wider range of adhesion to common materials (plastic and masonry) without the user of a primer. This grouping of silicones offers particular formulas for Mult-Surface Adhesion, Self Leveling, High Temperature, Fast Curing, and All Weather Sealant.

**Chem-Set™ RTV 7500**
One-component, RTV oxime silicone sealant, low odor and non-corrosive.
- Colors: clear, white, black, aluminum, gray, bronze, almond

**Sika AnchorFix-2**
Two component, solvent and styrene free anchoring adhesive.
- Fixing close to free edges
- Versatile range of embedment depths
- Anchoring without expansion forces
- Fits standard caulk guns (26:1 thrust ratio)
- Extended working time

*Must use with a good quality caulking gun. Minimum 18:1 thrust ratio.*
Adhesive Sealants

**Hybrid Sealants**
Hybrids are silane-crosslinking organic polymers that combine properties typical of both silicone and polyurethane with the weathering resistance of silicones.

---

**“Silicone on Steroids”**
Acrylic Latex Silicone

**Chem-Set .75-AM** Ultra Clear
- 2 times the bond strength of silicone - Lap shear 250-330 PSI
- 100% VOC HAPS/Compliant -75ºF to 250ºF (operating temp range)
- Shelf life 9 months • 24 tubes per case

---

**Chem-Set MS-35** White
- Available in 10.3 standard caulking cartridge
- 2 times the bond strength of silicone - Lap shear 250-330 PSI
- 100% VOC HAPS/Compliant -75ºF to 250ºF (operating temp range)
- Shelf life 9 months • 24 tubes per case

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**LORD 7610DTM** White
- Direct-to-metal single-component sealer & adhesive
- Durable - creates high strength bonds
- Temperature Resistant - can be applied at temperatures from -75º to +350ºF (-59º to 177°C).
- Shelf life one year

---

**Sikaflex 221** Polyurethane Construction Adhesive
- High strength polyurethane adhesive/sealant, non-sag, low odor, sandable and paintable
- Colors: white, grey and black

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**Chem-Set PB-3** Acrylic Latex Siliconized
- One-component, latex sealant
- Paintable, mildew resistant and non-yellowing
- Colors: clear, white, almond • Water clean up
- Polyurethane Sealent

See our complete line of adhesive sealants @ chemical-concepts.com
Epoxies/Acrylics

**Chem-Set™ 605 Quick Set Acrylic**
- 25ml or 50ml
- Exceptional bonds to non porous substrates
- Bonds plastics, metals, and many substrates

**Chem-Set™ 607**
Clear Structural Acrylic Adhesive. Crystal clear structural adhesive for assembly of plastic surfaces.
- UV stable with self-leveling liquid
- Minimal or no surface preparation
- Room temperature cured with short open time

**Chem-Set™ 633 Gel Epoxy**
- 25 ml, 50 ml or 400 ml
- High Viscosity
- Bonds to stone, wood and porous substrates

**Chem-Set™ 633 LV Epoxy**
- Available in 400ml and 600ml u-Tah cartridge which fits in standard caulking guns
- Low Viscosity
- 5 minute epoxy
- Great for rodding and laminating

All these products are available in bulk packaging (1 gallon and buckets)
Aerosols

Q320 Clear
Full quality aerosol line available in aerosol cans and canisters.
• Ideal for: Laminates to tables, Cabinets of all types, Drywall Insulation, MRP board and EPS

Contact Adhesives
Q5000 High temperature strength solvent contact adhesive
Q5200 Flammable contact adhesive, VOC Compliant in all states
Q5500 Water born contact adhesive, VOC Compliant in all states

Adhesive Remover
Q8200 Adhesive Remover/Gun & Hose Cleaner
Besides being an adhesive remover, can be used to clean guns and hoses

Pressure Sensitive Adhesives
Q6000 High solids solvent pressure sensitive adhesive
Q6200 Flammable pressure sensitive adhesive VOC compliant in all states
Q7200 Expanded polystyrene adhesive

See our complete line of products @ chemical-concepts.com
Solutions for the Signage Industry

**Chem-Set™ VST 3025**  
10 mil (.010”)  
DC Acrylic Foam Poly Paper Liner.  
- High tensile strength  
- Moisture and solvent resistant  
- Exceptional dynamic shear properties in hot and cold temps

**COMPARE TO:** 3M VHD 4905 and 4910

**Chem-Set™ VST 3050**  
20 mil (.020”)  
DC Acrylic Foam Poly Paper Liner.  
- High tensile strength  
- Moisture and solvent resistant  
- Exceptional dynamic shear properties in hot and cold temps

**COMPARE TO:** 3M VHD 4905 and 4910

**Chem-Set™ VST 6100**  
40 mil (.040”)  
Transparent tape with an acrylic core.  
- High tensile strength  
- Moisture and solvent resistant  
- Exceptional dynamic shear properties in hot and cold temps

**COMPARE TO:** 3M VHD 4905 and 4910

**Chem-Set™ VST 6120**  
47 mil (.047)  
DC Acrylic Foam Poly Paper Liner.  
- High tensile strength  
- Moisture and solvent resistant  
- Exceptional dynamic shear properties in hot and cold temps

**GRAY or WHITE**
High Bond Tapes

Solutions for the Signage Industry
Optically Clear Bonding

**tesa® 7054 ACXplus** 20 mil (.020”) **CLEAR**
- Transparent acrylic core tape
- Perfect for bonding of transparent materials such as glass or acrylic
- High immediate tack and peel adhesion
- Used for: Sign manufacturing, Deco glass panels, Partition walls

**tesa® 7055 ACXplus** 40 mil (.040”) **CLEAR**
- Transparent acrylic core tape
- Perfect for bonding of transparent materials such as glass or acrylic
- Characterized by its bonding power, stress dissipation and its temperature and weather resistance
- Used for: Sign manufacturing, Deco glass panels, Partition walls

**tesa® 7063 ACXplus** 32 mil (.032”) **BLACK**
- Black tackified acrylic core tape
- Tackified for bonding of “hard-to-bond materials”
- Great expansion/contraction capabilities
- High immediate tack and peel adhesion
- Used for: Painted signage, low surface energy surfaces (PE, PP, PVC)

**tesa® 7065 ACXplus** 47 mil (.047”) **BLACK**
- Black tackified acrylic core tape
- Tackified for bonding of “hard-to-bond materials”
- Great expansion/contraction capabilities
- High immediate tack and peel adhesion
- Used for: Painted signage, low surface energy surfaces (PE, PP, PVC)

**tesa® 61010** 8 mil (.008”) **CLEAR**
- Clear permanent mounting tape
- Used for: Interior signage

See our complete line of Tesa® Tapes @ chemical-concepts.com
General Assembly & Masking Tapes

Solutions for the Signage Industry

**tesa® 4970 Banner Tape**
- 8.9 mil (.0089”)
- White PVC-film acrylic tape
- Excellent combination of high tack and immediate adhesion
- Great for rough surfaces
- Strong adhesive power and humidity resistance

**tesa® 4334 Precision Mask**
- 3.5 mil (.0035”)
- Yellow precision masking tape
- Suitable for precise applications
- Guarantees very sharp-edged finishing
- Suitable for delicate surfaces

**tesa® 53120 General Purpose Mask**
- 5.2 mil (.0052”)
- Creme creped paper masking tape
- Cost efficient
- Good for general purpose bonding, molding, sealing and surface protection
- Adheres to a variety of surfaces

**tesa® 50600 Powder-Coating Tape**
- 3 mil (.003”)
- Distinctive green color
- Conformable to most surfaces
- Temperature resistant up to 220°C / 428°F
- Provides sharp paint edges

See our complete line of Tesa® Tapes @ chemical-concepts.com
Foam Tapes

**Double Coated Foam Tape**

1/16” Thick
- Used for mounting and joining nameplates, signs, small die cast parts, mirrors, maps, etc
- Excellent quick-stick sealing with high shear properties
- Good resistance to humidity, mild acids, oil and grease

**Double Coated Foam Tape**

1/32” Thick
- Used for mounting and joining nameplates, signs, small die cast parts, mirrors, maps, etc
- Excellent quick-stick sealing with high shear properties
- Good resistance to humidity, mild acids, oil and grease

**tesa® 62934 Double Sided PE Foam Tape**

1/32” Thick
- Versatile adhesive for high immediate adhesion
- UV, water, aging and cold shock resistant
- Specifically designed for rough surfaces and mounting of parts with gaps

See our complete line of Foam Tapes @ chemical-concepts.com
Tape Information

Panel and Letter Mounting

For mounting large sheets of common materials such as Dibond, Reynobond, PMMA¹, Aluminum ...

**Recommended tesa® ACXPlus Tapes for Optically Clear Bonding:**

- tesa® 7054 ACXPlus, tesa® 7055 ACXPlus

**Bonding Translucent Materials**

- Acrylic core tape with very high transparency
- Available in two different thicknesses: 20mil and 40mil
- Very high initial and final bonding strength
- Compensates for thermal expansion of dissimilar materials
- Water and vapor tight, chemical resistant, and no yellowing, even after exposure to UV² light and outdoor elements
- First choice for mounting translucent materials

**Recommended tesa® ACXPlus Tapes for Hard-to-Bond Substrates:**

- tesa® 7063 ACXPlus, tesa® 7065 ACXPlus

**Hard-to-Bond Substrates**

- Black acrylic core tape
- Bonding lower energy surfaces
- Bonding powder-coated surfaces
- Temperature and weather resistant
- Compensates for thermal expansion of dissimilar materials
- Available in two thickness: 32mil and 47mil

LED³ Mounting

For permanent bonding of LEDs to common surfaces such as Dibond, Reynobond, PMMA, Aluminum ...

**Recommended tesa Tape for LED Mounting:**

- tesa® 62934

**LED Mounting Tape**

- High ultimate adhesive strength for secure bonding performance
- High-temperature resistance
- UV, water, aging, and cold shock resistant
- Specially-designed for mounting LEDs

**Additional Recommended tesa Tapes for LED Mounting:**

- tesa® 7054 ACXPlus, tesa® 7055 ACXPlus

- Acrylic core tape with very high transparency
- Available in two different thicknesses: 20mil and 40mil
- Very high initial and final bonding strength
- Compensates for thermal expansion of dissimilar materials
- Water and vapor tight, chemical resistant, and no yellowing, even after exposure to UV light and outdoor elements
- For high-demand LED applications and enhanced security

¹ PMMA - polymethyl-methacrylate ² UV - ultraviolet ³ LED - light emitting diode
### General Assembly

**Filmic Mounting Tapes**
- Very good bonding performance, even on critical surfaces
- Excellent holding power at elevated temperatures
- Strong adhesion power and humidity resistance
  - tesa® 61010 when transparency is needed
  - tesa® 4970 for superior initial tack and slightly rough surfaces

**Recommended tesa Film Tapes:**
tesa® 61010, tesa® 4970

**Foam Mounting Tape**
- Versatile adhesive for high immediate adhesion on numerous substrates
- High initial and ultimate adhesion level
- UV, water, aging, and cold shock resistant
- Specially-designed for rough surfaces and mounting of parts with gaps

### Masking

**tesa® 4309 High-Temperature Masking Tape**
- Masking paint jobs with oven drying up to 120°C / 248°F
- Resistant to wet sanding
- Removable without leaving residues
  - Specially-designed for oven drying processes and applications where a high adhesion level is needed

**tesa® 53120 PV1 General-Purpose Masking Tape**
- Suitable for general-purpose applications
  - For bundling and protecting during production, storage, and transportation

**tesa® 4334 Precision Mask**
- Suitable for precise applications
- Guarantees very sharp-edged finishing
- Suitable for delicate surfaces
  - Also suitable for all applications where residue-free removability, even after a long period, is needed

**tesa® 4174 Fine-Line Masking Tape**
- Specially-designed for two-tone applications with subsequent oven drying
- Flexible, no shrinkage
- Very good conformability to irregular shapes
  - Outstanding workability in combination with its high performance, making it the first choice for all curved applications

**tesa® 50600 Powder-Coating Tape**
- Distinctive green color
- Conformable to most surfaces
- Temperature resistant up to 220°C / 428°F
- Provides sharp paint edges
- Also available on liner
  - The solution for masking during powder coating processes

**Recommended tesa Foam Tape:**
tesa® 62934
### Tape Information

#### tesa® ACXplus - Permanent, High Bond Mounting

<table>
<thead>
<tr>
<th>Product</th>
<th>Backing</th>
<th>Thickness without liner [µm / mils]</th>
<th>Adhesive</th>
<th>Color</th>
<th>Steel 72 hours</th>
<th>PMMA* 72 hours</th>
<th>Aluminum 72 hours</th>
<th>Glass 72 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>tesa® 7054</td>
<td>acrylic</td>
<td>500 / 20</td>
<td>pure acrylic</td>
<td>clear</td>
<td>19.0 173.6</td>
<td>12.0 109.6</td>
<td>19.0 173.6</td>
<td>17.0 155.3</td>
</tr>
<tr>
<td>tesa® 7055</td>
<td>acrylic</td>
<td>1000 / 40</td>
<td>pure acrylic</td>
<td>clear</td>
<td>24.0 219.3</td>
<td>17.0 155.3</td>
<td>24.0 219.3</td>
<td>24.0 219.3</td>
</tr>
<tr>
<td>tesa® 7063</td>
<td>acrylic</td>
<td>800 / 32</td>
<td>tackified acrylic</td>
<td>black</td>
<td>30.0 274.1</td>
<td>27.0 246.7</td>
<td>32.0 292.4</td>
<td>32.0 292.4</td>
</tr>
<tr>
<td>tesa® 7065</td>
<td>acrylic</td>
<td>1200 / 47</td>
<td>tackified acrylic</td>
<td>black</td>
<td>40.0 365.4</td>
<td>35.0 319.8</td>
<td>35.0 319.8</td>
<td>36.0 328.9</td>
</tr>
</tbody>
</table>

*polymethyl-methacrylate

#### Mounting

<table>
<thead>
<tr>
<th>Product</th>
<th>Backing</th>
<th>Thickness without liner [µm / mils]</th>
<th>Adhesive</th>
<th>Color</th>
<th>Steel 14 days</th>
<th>PC 14 days</th>
<th>Aluminum 14 days</th>
<th>PVC 14 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>tesa® 62934</td>
<td>PE-foam</td>
<td>800 / 32</td>
<td>tackified acrylic</td>
<td>black</td>
<td>17.0 159.3</td>
<td>17.0 159.3</td>
<td>17.0 159.3</td>
<td>17.0 159.3</td>
</tr>
<tr>
<td>tesa® 61010 PV4</td>
<td>PET</td>
<td>205 / 8</td>
<td>tackified acrylic</td>
<td>clear</td>
<td>14.0 127.9</td>
<td>13.4 122.4</td>
<td>12.6 115.1</td>
<td>12.8 116.9</td>
</tr>
<tr>
<td>tesa® 4970</td>
<td>PVC</td>
<td>240 / 9.5</td>
<td>tackified acrylic</td>
<td>white</td>
<td>14.6 135.2</td>
<td>13.5 135.2</td>
<td>12.4 113.3</td>
<td>13.5 123.3</td>
</tr>
<tr>
<td>tesa® 4985</td>
<td>n/a</td>
<td>50 / 2</td>
<td>tackified acrylic</td>
<td>clear</td>
<td>11.1 101.4</td>
<td>9.7 88.6</td>
<td>10.0 91.4</td>
<td>9.4 85.9</td>
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<tr>
<td>tesa® 4985 PV9</td>
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<td>tackified acrylic</td>
<td>clear</td>
<td>11.1 101.4</td>
<td>9.7 88.6</td>
<td>10.0 91.4</td>
<td>9.4 85.9</td>
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<tr>
<td>tesa® 6013</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
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#### Masking

<table>
<thead>
<tr>
<th>Product</th>
<th>Backing</th>
<th>Thickness [µm / mils]</th>
<th>Adhesive</th>
<th>Color</th>
<th>Adhesion to Steel N/cm oz/inch</th>
<th>Tensile Strength N/cm lbs/inch</th>
<th>Temperature Resistance [1 hour]</th>
</tr>
</thead>
<tbody>
<tr>
<td>tesa® 53120 PV1</td>
<td>creped paper</td>
<td>132 / 5.2</td>
<td>natural rubber</td>
<td>cream</td>
<td>3.4 31.1</td>
<td>36.8 21.0</td>
<td>50°C / 122°F</td>
</tr>
<tr>
<td>tesa® 4334</td>
<td>flat paper</td>
<td>90 / 3.5</td>
<td>acrylic</td>
<td>yellow</td>
<td>1.9 17.4</td>
<td>25.0 14.3</td>
<td>60°C / 140°F</td>
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<tr>
<td>tesa® 4309</td>
<td>creped paper</td>
<td>170 / 6.7</td>
<td>natural rubber</td>
<td>brown</td>
<td>3.5 32.0</td>
<td>47.0 26.8</td>
<td>120°C / 248°F</td>
</tr>
<tr>
<td>tesa® 4174</td>
<td>PVC</td>
<td>110 / 4.3</td>
<td>natural rubber</td>
<td>olive</td>
<td>3.4 31.1</td>
<td>25.0 14.3</td>
<td>150°C / 302°F</td>
</tr>
<tr>
<td>tesa® 50690</td>
<td>PET</td>
<td>80 / 3.2</td>
<td>silicone</td>
<td>green</td>
<td>4.0 36.5</td>
<td>&gt;40.0 23.0</td>
<td>220°C / 428°F</td>
</tr>
<tr>
<td>tesa® 48460 PV1</td>
<td>PE</td>
<td>48 / 1.9</td>
<td>acrylic</td>
<td>clear</td>
<td>0.8 7.3</td>
<td>12.0 6.9</td>
<td>60°C / 140°F</td>
</tr>
</tbody>
</table>

Tesa products prove their impressive quality day in day out in demanding conditions and are regularly subjected to strict controls. All information and recommendations are provided to the best of our knowledge on the basis of our practical experience. Nevertheless, tesa tape, inc. can make no warranties, expressed or implied, including, but not limited to any implied warranty or merchantability or fitness for a particular purpose. The user, therefore, is responsible for determining whether the tesa product is fit for a particular purpose and suitable for the user’s method of application. If you are in any doubt, our technical support staff will be glad to advise you.
Sanders, Abrasives and Pads

11” Dual Action Electric General Sander

- Runs 1700 “orbits” per minute
- Smooth, hand-polish action
- 11” drive pad utilizing hook and loop sandpaper
- Consistent, uniform finish
- Mixed grit types / semi-friable aluminum oxide
- c-wt paper backing

**Features**
- Heavy-duty ball bearing capacitor motor
- No gears to grind or strip out
- No armature winding to burn out
- No carbon brushes to burn out
- Exclusive removal shaft system
- Sands, polishes and finishes

**Specifications**
- Weight .......................................................... 18 lbs.
- Overall height ............................................... 10in.
- Amps ........................................... 2.3@110v, 1.2@220v
- RPM .................................................. 1,770@110v
- Moto ................................................. 110v/220v
- Housing ....................... heavy-duty aluminum

11.25-in. Sanding Discs Blue for Gem Sander

Abrasives

- Scuff Pads
- Reasonably Priced!
- PSA and Hook and Loop
- Assortment of Grits: 80, 120, 180, 220, 320

1950 SiaSpeed Siafast H/L Paper Discs Series

The versatile all-round product 1950 siaaspeed is specially designed for high stock removal rates, perfect surface quality and long life in applications such as the surface treatment of body filler, primer filler, lacquers and paints.

- 5” x 5 H
- 6” x 15 H
- 6” x 9 H
- 5” x 9 H Festool
- 5” x NH Best
- 6” x NH
Hot Melts

Chem-Set™ Hot Melt Adhesives

725R10, 735R10, 711R10

- General purpose for porous and non-porous materials
- Use on metals, ceramics, coated papers, non-porous materials
- Sizes: 1/2” x 10”, 5/8” x 2”
- Colors: 725R10-Translucent, 735R10-Amber

725R10: 1/2” x 4”
- 5/8” x 4”
- 3/4” x 2.5”
- 5/16” x 4”
- 1” x 3”

735R10: 1/2” x 10”
- 5/8” x 10”
- 3/4” x 2.5”
- 1” x 3”

711R10: 1/2” x 10”
- 5/8” x 10”
- 3/4” x 2.5”
- 1” x 3”

HM612

- For use with CCH220 gun
- Full cure in 5 minutes • Will not get brittle
- One stick covers 4 linear feet
- Newest technology in hot melts using acrylic resins for stronger bonds
- Used for channel letters and metal bonding (see page 5)

Other formulations available—call for more information

Warning: Contact with skin can cause severe burns!

See our complete line of hot melt adhesives @ chemical-concepts.com
Dispense Guns and Mixers

**Chem-Set™** We stock Manual & Pneumatic Adhesive Dispense Guns from Cox, Newborn, Sulzer and Albion.

<table>
<thead>
<tr>
<th>Dispense Gun</th>
<th>Recommended Mixer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CCH50G</strong></td>
<td>50 ml</td>
</tr>
</tbody>
</table>
| • For use with 50 ml cartridges  
• Easily converts to 1:1, 2:1, 4:1, 10:1  
• Impact resistant hardened plastic body is lightweight and extremely durable  
• No-Drip design with an integrated pre-release system | **TAH 190-620**  
Static Mixing Nozzle |

* Pictured inside 250 caulk gun

<table>
<thead>
<tr>
<th><strong>DK Converter</strong></th>
<th>50 ml</th>
</tr>
</thead>
</table>
| • Caulk Gun Adapter for use inside caulk gun  
• For use with 50 ml cartridges  
• Caulk gun adapter for use inside caulk gun: 1:1, 2:1, 4:1, 10:1  
• Converts 50ml dual cartridges for use in standard 1/10th gal. guns | **TAH 190-620**  
Static Mixing Nozzle |

<table>
<thead>
<tr>
<th><strong>535XSP</strong></th>
<th>375 ml</th>
</tr>
</thead>
</table>
| • 26:1 Thrust ratio  
• Extra durable, heat treated piston rod  
• Precision sintered friction plate  
• Easy release star-burst reverse gripping plate  
• Easily converts to 300ml x 300ml, 300ml x 150ml, 300ml x 75ml | **MCQ 08-24T**  
Static Mixing Nozzle |

<table>
<thead>
<tr>
<th><strong>M380</strong></th>
<th>404 ml</th>
</tr>
</thead>
</table>
| • 18:1 Thrust ratio  
• For use with coaxial cartridges  
• Available gun ratios: 1:1, 2:1, 4:1, 10:1  
• Catch Plate - Sintered Steel  
• All component replaceable parts | **TAH 160-824**  
Static Mixing Nozzle |

See our complete line of Chem-set™ Dispense Guns @ chemical-concepts.com
## Dispense Guns and Mixers

**Chem-Set™** We stock Manual & Pneumatic Adhesive Dispense Guns from Cox, Newborn, Sulzer and Albion.

<table>
<thead>
<tr>
<th>Dispense Gun</th>
<th>Recommended Mixer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>830A30</strong></td>
<td><strong>375 ml</strong></td>
</tr>
<tr>
<td>• Multi ratio pneumatic 2-part adhesive dispensing gun</td>
<td></td>
</tr>
<tr>
<td>• 300ml x 300ml, 300ml x 150ml, 300ml x 75ml, 150ml x 150ml</td>
<td></td>
</tr>
<tr>
<td>• Nominal thrust, 490 lbs. @ 100psi 2.5” Cylinders</td>
<td></td>
</tr>
<tr>
<td><strong>520 GUN</strong></td>
<td><strong>225 ml</strong></td>
</tr>
<tr>
<td>• 18:1 Thrust ratio</td>
<td></td>
</tr>
<tr>
<td>• Easily converts to 75 ml, 150ml, 180ml</td>
<td></td>
</tr>
<tr>
<td>• Extra durable, heat treated piston rod</td>
<td></td>
</tr>
<tr>
<td>• Precision sintered friction plate</td>
<td></td>
</tr>
<tr>
<td>• Easy release star-burst reverse gripping plate</td>
<td></td>
</tr>
<tr>
<td><strong>250 High Thrust Caulk Gun</strong></td>
<td></td>
</tr>
<tr>
<td>• 18:1 thrust ratio</td>
<td></td>
</tr>
<tr>
<td>• For use with one part adhesives/sealants in 1/10 gal cartridges</td>
<td></td>
</tr>
<tr>
<td>• Revolving barrel</td>
<td></td>
</tr>
<tr>
<td><strong>VR200XSP</strong></td>
<td></td>
</tr>
<tr>
<td>• 26:1 Thrust ratio</td>
<td></td>
</tr>
<tr>
<td>• For use with 220ml mixpac and TAH cartridges</td>
<td></td>
</tr>
<tr>
<td>• Easily converts to 1:1, 2:1, 4:1 and 10:1</td>
<td></td>
</tr>
<tr>
<td>• Precision sintered friction plate</td>
<td></td>
</tr>
<tr>
<td><strong>DM200</strong></td>
<td><strong>200 ml</strong></td>
</tr>
<tr>
<td>• Torsion free construction</td>
<td></td>
</tr>
<tr>
<td>• Integrated pressure relief</td>
<td></td>
</tr>
<tr>
<td>• No dripping</td>
<td></td>
</tr>
</tbody>
</table>

See our complete line of Chem-set™ Dispense Guns @ chemical-concepts.com
Bonding Fasteners

Chem-Set™ KEEP-NUT™ Press In Self-Anchoring Threaded Inserts

Installs in 2 EASY steps!

• Drill 1/4" hole
• Press in KEEP-NUT™!

• KEEP-NUT™ is a revolutionary press-in insert with mechanical anchoring to create threaded seat on panels, wall-mounting signs, fixtures, wall coverings, ventilated facades, décor, and much more.

• KEEP-NUT™ is manufactured in stainless steel and it’s made of a threaded bush with a set of elastic crowns and a plastic ring for holding the complete set of parts.

Tested and works with 1" Sintra PVC Board “up to 90 lbs”

• Usable with panels spanning a variety of sizes – including fairly thin panels (down to 6.5mm or 1/4”)
• 90lbs. pull-out force for PVC board (other solid surfaces can have up to 562lbs. pull-out force!)
• Easily installed in the smallest of fixtures/signs
• NO ADHESIVES = LESS MESS!
• “No-through” threading of the internal bushing to prevent over tightening

Keep-Nut™ Setting Tool - 1/4-20 Thread

The Keep-Nut Setting Tool or Insertion Tool is used to insert the Keep-Nut into the pre-drilled hole created by your CNC or Manual Bit.

Keep-Nut™ Go/No-Go Gauge

The Keep-Nut Go/No Go Gauge is used to test the drilled diameter and depth of the Keep-Nut hole.

Keep-Nut™ 11.8mm Drill Bit w/ Stop Collar

Comes with an adjustable stop collar to easily and accurately drill precise depth holes.
Bonding Fasteners

Chem-Set™ No Drill FASTENERS
No drilling or welding! Mounts using structural adhesives

Available in stainless steel, aluminum or zinc plated
Please see our website for available sizes and dimensions

Use Chem-Set™ No Drill Bonding Fastener to replace rivets, tapes and welds.

- Bonds with metals, plastics, wood, composites, stone.
- Available in Zinc plated, stainless steel, Trivalent Zinc Coatings as well as Nano Plating on Mild Steel Parts
- No drilling or taping
### Bonding Fasteners

**TYPE M1** MALE BOLT STUDS

Available in both imperial and metric threads in a variety of lengths.

Available in plated steel and stainless steel
(plating meets European standards)

#### M1-B23 (23MM / 0.91”) ROUND

<table>
<thead>
<tr>
<th>THREAD SIZE</th>
<th>COMMON LENGTHS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4-20 UNC</td>
<td>.75” 1” 1.5” 2”</td>
</tr>
<tr>
<td>10/32 UNF</td>
<td>.75” 1” 1.25” 2”</td>
</tr>
</tbody>
</table>

*Additional Threads and Thread Lengths Available

#### M1-B38 (38MM / 1.50”) ROUND

<table>
<thead>
<tr>
<th>THREAD SIZE</th>
<th>COMMON LENGTHS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4-20 UNC</td>
<td>.675” .75” 1” 1.25” 1.5” 2” 2.5” 3”</td>
</tr>
<tr>
<td>10/32 UNF</td>
<td>.675” .75” 1” 1.25” 2”</td>
</tr>
<tr>
<td>3/8 UNC</td>
<td>1.5” 2” 2.5” 3”</td>
</tr>
</tbody>
</table>

*Additional Threads and Thread Lengths Available

#### M1-T38 (38MM / 1.50”) RECTANGULAR

<table>
<thead>
<tr>
<th>THREAD SIZE</th>
<th>COMMON LENGTHS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4-20 UNC</td>
<td>.75” 1” 1.5” 2”</td>
</tr>
<tr>
<td>10/32 UNF</td>
<td>.75” 1” 1.25” 2”</td>
</tr>
</tbody>
</table>

*Additional Threads and Thread Lengths Available

Most popular bonding fasteners and sizes illustrated. See website for our complete line of fasteners @ chemical-concepts.com
**TYPE F1 HEX NUTS**

_F1 - Female Hex Nuts securely mounted on a variety of perforated baseplates._

Available in both Inch and metric threads.

- **F1-B23** (23MM / 0.91”) ROUND
  - THREAD SIZE*
    - 1/4 UNC  5/16 UNC

- **F1-B38** (38MM / 1.50”) ROUND
  - THREAD SIZE*
    - 1/2 UNC  10/32 UNF  5/16 UNC
    - 1/4 UNC  3/8 UNC

- **F1-SB30** (30MM / 1.18”) SQUARE
  - THREAD SIZE*
    - 1/4 UNC  5/16 UNC

- **F1-SB50** (50MM / 1.97”) SQUARE
  - THREAD SIZE*
    - 1/2 UNC  10/32 UNF  5/16 UNC
    - 1/4 UNC  3/8 UNC

- **F1-T38** (38MMX15MM/ 1.50”X.59”) RECTANGLE
  - THREAD SIZE*
    - 1/4 UNC  5/16 UNC

*Additional Threads Available

Most popular bonding fasteners and sizes illustrated. See website for our complete line of fasteners @ chemical-concepts.com
**Bonding Fasteners**

**TYPE F2 FEMALE COLLARS**

*F2 - Female Threaded Collars of various lengths mounted on a variety of baseplates. Available in both imperial and metric threads.*

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Thread Size*</th>
<th>Common Lengths*</th>
</tr>
</thead>
<tbody>
<tr>
<td>F2-B23</td>
<td>(23mm / 0.91&quot;) ROUND</td>
<td>1/4 UNC</td>
<td>.375&quot; .5&quot;</td>
</tr>
<tr>
<td>F2-B38</td>
<td>(38mm / 1.50&quot;) ROUND</td>
<td>1/4 UNC</td>
<td>.375&quot; .5&quot; .75&quot; 1&quot;</td>
</tr>
<tr>
<td>F2-SB30</td>
<td>(38mm / 1.50&quot;) SQUARE</td>
<td>1/4 UNC</td>
<td>.375&quot; .5&quot; .75&quot; 1&quot;</td>
</tr>
<tr>
<td>F2-SB50</td>
<td>(50mm / 1.97&quot;) SQUARE</td>
<td>1/4 UNC</td>
<td>.375&quot; .5&quot; .75&quot; 1&quot;</td>
</tr>
<tr>
<td>F2-T38</td>
<td>(38mmx15mm / 1.50&quot;x.59&quot;) RECTANGLE</td>
<td>1/4 UNC</td>
<td>.375&quot; .5&quot; .75&quot; 1&quot;</td>
</tr>
</tbody>
</table>

*Additional Threads and Thread Lengths Available*

Most popular bonding fasteners and sizes illustrated. See website for our complete line of fasteners @ Chemical-concepts.com
## SPECIALTY ITEMS
Available in both Inch and metric threads.

### M1-T38 (38MM / 0.90”) RECTANGULAR

<table>
<thead>
<tr>
<th>THREAD SIZE</th>
<th>COMMON LENGTHS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4 UNC</td>
<td>.675” .75” 1” 1.25” 1.5” 2” 2.5” 3”</td>
</tr>
<tr>
<td>10/32 UNF</td>
<td>.675” .75” 1” 1.25” 2”</td>
</tr>
<tr>
<td>3/8 UNC</td>
<td>1.5” 2” 2.5” 3”</td>
</tr>
</tbody>
</table>

*Additional Threads and Thread Lengths Available

### M1-HP44

<table>
<thead>
<tr>
<th>THREAD SIZE</th>
<th>COMMON LENGTHS</th>
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</thead>
<tbody>
<tr>
<td>1/4 UNC</td>
<td>.675” .75” 1” 1.25” 1.5” 2” 2.5” 3”</td>
</tr>
<tr>
<td>10/32 UNF</td>
<td>.675” .75” 1” 1.25” 2”</td>
</tr>
<tr>
<td>3/8 UNC</td>
<td>1.5” 2” 2.5” 3”</td>
</tr>
</tbody>
</table>

*Additional Threads and Thread Lengths Available

### M4-38

<table>
<thead>
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<th>THREAD SIZE</th>
<th>COMMON LENGTHS</th>
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</thead>
<tbody>
<tr>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

*No Threads Available. For Insulation Only.

### M7-SB32

<table>
<thead>
<tr>
<th>THREAD SIZE</th>
<th>COMMON LENGTHS</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

*Use As Tie Downs