LOCTITE® HY 4090™ – Structural Hybrid Adhesive

Henkel’s innovative technology delivers the strength of a structural adhesive with the speed of an instant adhesive

LOCTITE® HY 4090™ structural hybrid adhesive is an innovative hybrid technology that provides the bond strength and speed you need to solve your design and assembly challenges. With the strength of a structural adhesive and the speed of an instant adhesive, LOCTITE® HY 4090™ offers both performance and versatility.

This powerful combination provides impact resistance, high strength bonding on a variety of substrates, and excellent chemical resistance – making LOCTITE® HY 4090™ the essential adhesive solution. LOCTITE® HY 4090™ opens the door to new applications and new solutions.

These are just some of the benefits of LOCTITE® HY 4090™:

- Strength of a structural adhesive
- Speed of an instant adhesive
- Impact and vibration resistance
- Temperature resistance up to 300°F (150°C)
- Gap filling up to 0.2” (5 mm)
- Suitable for a variety of substrates, including metals, most plastics and rubbers

na.henkel-adhesives.com/4090
LOCTITE® HY 4090™ STRUCTURAL HYBRID ADHESIVE

delivers high quality performance in extreme environments and challenging conditions. This hybrid powerhouse provides the necessary versatility to solve most every design, assembly and repair challenge.

In addition to combining the critical attributes of structural and instant adhesives, LOCTITE® HY 4090™ offers:

- Fast fixture times even at low temperatures 40°F (5°C)
- Low blooming
- Good UV resistance
- Optimized packaging and longer open times for larger surface applications

Features and Benefits:

- **Speed**
  for applications that require the speed of an instant adhesive

- **Impact Resistance**
  for highly stressed joints and applications exposed to vibrations

- **High Moisture Resistance**
  for applications that demand good humidity and solvent resistance in various environments

- **Up to 300°F (150°C)**
  Temperature Resistance
tested to resist even extreme heat conditions

- **Gap Filling up to 0.2” (5 mm)**
  for fast bonding of structural parts; fills gaps within 3-5 min. open time

### TECHNICAL DATA

<table>
<thead>
<tr>
<th>COLOR</th>
<th>Slightly cloudy to light yellow</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPEARANCE</td>
<td>High viscosity gel</td>
</tr>
<tr>
<td>MIX RATIO (VOLUME)</td>
<td>1:1</td>
</tr>
<tr>
<td>WORKING TIME</td>
<td>3 to 5 min.</td>
</tr>
</tbody>
</table>

### PROPERTIES OF CURED MATERIAL

<table>
<thead>
<tr>
<th>LAP SHEAR STRENGTH, ISO 4587, AFTER 24 HOURS, 72°F (22°C)</th>
<th>Steel (grit blasted)</th>
<th>Aluminum (etched)</th>
<th>Polycarbonate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steel (grit blasted)</td>
<td>17 N/mm²</td>
<td>13 N/mm²</td>
<td>6.9 N/mm²</td>
</tr>
<tr>
<td>Aluminum (etched)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polycarbonate</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>HIGH GAP FILL</th>
<th>Up to 0.2” (5 mm) depending on bond geometry</th>
</tr>
</thead>
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<table>
<thead>
<tr>
<th>TEMPERATURE RESISTANCE</th>
<th>-40°F to 300°F (-40°C to 150°C)</th>
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<table>
<thead>
<tr>
<th>CHEMICAL RESISTANCE</th>
<th>Very good chemical/solvent resistance</th>
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**HENKEL CORPORATION**

Engineering Adhesives
One Henkel Way
Rocky Hill, Connecticut 06067
Tel: 1.800.LOCTITE (562.8483)
Tel: 860.571.5100
Fax: 860.571.5465
na.henkel-adhesives.com/4090