# Swift® bond 3U316 1N
## Liquid Polyurethane

### Suggested Application
3U316 1N is a single-component, fully reactive liquid polyurethane adhesive that cross-links through the chemical reaction with moisture, found in the surrounding air and substrates or provided by misting, to produce a thermoset bond.

This product was designed for extrusion based panel assembly including but not limited to recreational vehicles.

### Typical substrates
- EPS, PU foam, aluminum, wood, steel, and various steel coatings including epoxy/phenolic.

### Typical adhesive spread rates
- 10 – 14 g/ft²

### Typical water misting rate
- See Chart

All swift®bond liquid moisture cure polyurethanes should be pressed for optimal bond performance.

- Pod or Platen presses = 3ps minimum
- Bag presses = 6 in Hg minimum

### Features & Benefits

<table>
<thead>
<tr>
<th>Feature</th>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patented Fully Reactive Technology</td>
<td>In addition to the many other benefits of this technology, bonded assemblies including darkly colored materials possess exceptional heat resistance.</td>
</tr>
<tr>
<td>Excellent Creep Resistance</td>
<td>Cured adhesive film is extremely tough yet flexible. This allows for differences in thermal expansion and contraction of various substrates without sacrificing bond performance.</td>
</tr>
<tr>
<td>Excellent Environmental Resistance</td>
<td>Cures to form a very strong bond that is resistant to heat, cold, moisture and many solvents.</td>
</tr>
<tr>
<td>Versatility</td>
<td>Adheres to a wide variety of core stocks and skins.</td>
</tr>
</tbody>
</table>

Our Focus is Clear. **Perfecting Adhesives.**

**NOTES TO USER:** by ordering/receiving product you accept the H.B. Fuller General Terms and Conditions of Sale applicable in the region. Please request a copy if you have not received these. These Terms and Conditions contain disclaimers of implied warranties (including but not limited to disclaiming warranties of fitness for a particular purpose) and limits of liability. All other terms are rejected. In any event, the total aggregate liability of H.B. Fuller for any claim or series of related claims however arising, in contract, tort (including negligence), breach or statutory duty, misrepresentation, strict liability or otherwise, is limited to replacement of affected products or refund of the purchase price for affected products. H.B. Fuller shall not be liable for loss of profit, loss of margin, loss of contract, loss of business, loss of goodwill or any indirect or consequential losses arising out of or in connection with product supply.

Nothing in any term shall operate to exclude or limit H.B. Fuller’s liability for fraud, gross negligence or for death or personal injury caused by negligence or for breach of any mandatory implied terms.
IMPORTANT: Information, specifications, procedures and recommendations provided ("information") are based on our experience and we believe this to be accurate. No representation, guarantee or warranty is made as to the accuracy or completeness of the information or that use of the product will avoid losses or damages or give desired results. It is purchaser's sole responsibility to test and determine the suitability of any product for the intended use. Tests should be repeated if materials or conditions change in any way. No employee, distributor or agent has any right to change these facts and offer a guarantee of performance.

NOTE TO USER: by ordering/receiving product you accept the H.B. Fuller General Terms and Conditions of Sale applicable in the region. Please request a copy if you have not received these. These Terms and Conditions contain disclaimers of implied warranties (including but not limited to disclaiming warranties of fitness for a particular purpose) and limits of liability. All other terms are rejected.

In any event, the total aggregate liability of H.B. Fuller for any claim or series of related claims however arising, in contract, tort (including negligence), breach of statutory duty, misrepresentation, strict liability or otherwise, is limited to replacement of affected products or refund of the purchase price for affected products. H.B. Fuller shall not be liable for loss of profit, loss of margin, loss of contract, loss of business, loss of goodwill or any indirect or consequential losses arising out of or in connection with product supply.

Nothing in any term shall operate to exclude or limit H.B. Fuller's liability for fraud, gross negligence or for death or personal injury caused by negligence or for breach of any mandatory implied terms.

Our Focus is Clear. Perfecting Adhesives.

<table>
<thead>
<tr>
<th>Typical Properties</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity @ 25°C</td>
<td>4,500 ± 1,500 cps</td>
</tr>
<tr>
<td>Solids</td>
<td>100%</td>
</tr>
<tr>
<td>Wt / Gal</td>
<td>9.25 lbs</td>
</tr>
<tr>
<td>Color</td>
<td>Amber</td>
</tr>
<tr>
<td>Storage Life</td>
<td>6 months unopened</td>
</tr>
<tr>
<td>Safety Advice</td>
<td>Please refer to the MSDS for safety advice</td>
</tr>
</tbody>
</table>

*Values are grams of water (mist) required per square foot based on lauan/FRP lamination pressed at 6" Hg vacuum with spread rate of 12 g/ft²
*Values may vary based on adhesive spread rate, application method, water misting rate and possibly other process related factors

<table>
<thead>
<tr>
<th>Ambient Conditions</th>
<th>&lt;20% RH</th>
<th>30% RH</th>
<th>40% RH</th>
<th>50% RH</th>
<th>60% RH</th>
<th>70% RH</th>
<th>&gt;80% RH</th>
<th>Maximum Working Time (minutes)</th>
<th>Minimum Press Time (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>60°F</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>1.0</td>
<td>11</td>
<td>23</td>
</tr>
<tr>
<td>65°F</td>
<td>2.0</td>
<td>2.0</td>
<td>1.5</td>
<td>1.5</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>10</td>
<td>21</td>
</tr>
<tr>
<td>70°F</td>
<td>2.0</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>75°F</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td>80°F</td>
<td>1.5</td>
<td>1.5</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>0.5</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>85°F</td>
<td>1.5</td>
<td>1.0</td>
<td>1.0</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>90°F</td>
<td>1.0</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>0.0</td>
<td>0.0</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>95°F</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>0.0</td>
<td>0.0</td>
<td>6</td>
<td>10</td>
</tr>
</tbody>
</table>

*dependent upon moisture and temperature

TECHNICAL DATA SHEET

Typical Properties

| Water Misting Rate vs. Ambient Plant Conditions | Processing Parameters |

*IMPORTANT: Information, specifications, procedures and recommendations provided ("information") are based on our experience and we believe this to be accurate. No representation, guarantee or warranty is made as to the accuracy or completeness of the information or that use of the product will avoid losses or damages or give desired results. It is purchaser's sole responsibility to test and determine the suitability of any product for the intended use. Tests should be repeated if materials or conditions change in any way. No employee, distributor or agent has any right to change these facts and offer a guarantee of performance.

NOTE TO USER: by ordering/receiving product you accept the H.B. Fuller General Terms and Conditions of Sale applicable in the region. Please request a copy if you have not received these. These Terms and Conditions contain disclaimers of implied warranties (including but not limited to disclaiming warranties of fitness for a particular purpose) and limits of liability. All other terms are rejected.

In any event, the total aggregate liability of H.B. Fuller for any claim or series of related claims however arising, in contract, tort (including negligence), breach of statutory duty, misrepresentation, strict liability or otherwise, is limited to replacement of affected products or refund of the purchase price for affected products. H.B. Fuller shall not be liable for loss of profit, loss of margin, loss of contract, loss of business, loss of goodwill or any indirect or consequential losses arising out of or in connection with product supply.

Nothing in any term shall operate to exclude or limit H.B. Fuller's liability for fraud, gross negligence or for death or personal injury caused by negligence or for breach of any mandatory implied terms.

Our Focus is Clear. Perfecting Adhesives.

| Contact Information |

Australia
Tel: +61 1800 423 855
customer.service@hbfuller.com

China & Hong Kong
Tel: +86 20 82068291
cs.china@hbfuller.com

Indonesia
Tel: +62-21-5307232/33
cs.indonesia@hbfuller.com

Korea
Tel: +82 2 786 8296
cskorea@hbfuller.com

Malaysia
Tel: +60 3 3345 5200
customer.service@hbfuller.com

New Zealand
Tel: +64 800 555 072
customer.service@hbfuller.com

Philippines
Tel: +63 2 5194073
cs.philippines@hbfuller.com

Taiwan
Tel: +886 2 26033385
cs.taiwan@hbfuller.com

Thailand
Tel: +66 2 3757442

Vietnam
Tel: +84 8 2225588

cs.vietnam@hbfuller.com

Korea
Tel: +82 2 786 8296
cskorea@hbfuller.com

Malaysia
Tel: +60 3 3345 5200
customer.service@hbfuller.com

New Zealand
Tel: +64 800 555 072
customer.service@hbfuller.com

Philippines
Tel: +63 2 5194073
cs.philippines@hbfuller.com

Taiwan
Tel: +886 2 26033385
cs.taiwan@hbfuller.com

Thailand
Tel: +66 2 3757442

Vietnam
Tel: +84 8 2225588

cs.vietnam@hbfuller.com
IMPORTANT: Information, specifications, procedures and recommendations provided (“information”) are based on our experience and we believe this to be accurate. No representation, guarantee or warranty is made as to the accuracy or completeness of the information or that use of the product will avoid losses or damages or give desired results. It is purchaser’s sole responsibility to test and determine the suitability of any product for the intended use. Tests should be repeated if materials or conditions change in any way. No employee, distributor or agent has any right to change these facts and offer a guarantee of performance.

NOTE TO USER: by ordering/receiving product you accept the H.B. Fuller General Terms and Conditions of Sale applicable in the region. Please request a copy if you have not received these. These Terms and Conditions contain disclaimers of implied warranties (including but not limited to disclaiming warranties of fitness for a particular purpose) and limits of liability. All other terms are rejected. In any event, the total aggregate liability of H.B. Fuller for any claim or series of related claims however arising, in contract, tort (including negligence), breach or statutory duty, misrepresentation, strict liability or otherwise, is limited to replacement of affected products or refund of the purchase price for affected products. H.B. Fuller shall not be liable for loss of profit, loss of margin, loss of contract, loss of business, loss of goodwill or any indirect or consequential losses arising out of or in connection with product supply.

Nothing in any term shall operate to exclude or limit H.B. Fuller’s liability for fraud, gross negligence or for death or personal injury caused by negligence or for breach of any mandatory implied terms.

Our Focus is Clear. Perfecting Adhesives.

Australia
Tel: +61 1800 423 855
customer.service@hbfuller.com

China & Hong Kong
Tel: +86 20 82068291
ccchina@hbfuller.com

Indonesia
Tel: +62-21-5307232/33

customer.service@hbfuller.com

Korea
Tel: +82 2 786 8296
cskorea@hbfuller.com

Malaysia
Tel: +603 3345 5200

New Zealand
Tel: +64 800 555 072
customer.service@hbfuller.com

Philippines
Tel: +63 2 5194073

Taiwan
Tel: +886 2 26033385

Thailand
Tel: +66 2 3757442

Vietnam
Tel: +84 8 22225588

TECHNICAL DATA SHEET

Storage
To ensure maximum stability, product should be stored in the original closed container in an interior location capable of maintaining a constant temperature.

Important Safety Information
Before using this or any other chemical product, be sure to read and understand the information on the Material Safety Data Sheet and Product Labels. Remain aware of potential hazards and follow all precautionary measures, handling instructions, and disposal considerations outlined in the MSDS and labels.

For help in a Chemical Emergency, call CHEMTREC at 1800-424-9300.

Use Precaution
Product is ready to use as received; do not dilute.