Anaerobic Adhesives
For over a century, we have developed smart adhesive solutions that touch and improve people’s daily lives. Customers worldwide use our bonding systems in countless applications and across diverse sectors, including industrial manufacturing, construction, electronics, automotive, medical and packaging. Our products are often invisible to the end-user, but every day they make a significant contribution to the creation of a safer, more efficient and sustainable world.

We are committed to innovation and continually invest in technological advances in our drive to develop ever more capable and adaptable ‘smart’ adhesives. This commitment is supported by our parent company, Arkema, a globally renowned manufacturer of specialty chemicals and advanced materials.

Through Arkema, we have access to a worldwide infrastructure and full supply chain, including innovative raw materials, more sustainable sourcing and energy-efficient production capabilities.

Our vision
Collaborate and innovate to create smart adhesives that are safer, more flexible, efficient and responsive to the dynamic challenges of our environment.

'A global leader in smart adhesives'

For over a century, we have developed smart adhesive solutions that touch and improve people’s daily lives. Customers worldwide use our bonding systems in countless applications and across diverse sectors, including industrial manufacturing, construction, electronics, automotive, medical and packaging. Our products are often invisible to the end-user, but every day they make a significant contribution to the creation of a safer, more efficient and sustainable world.

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Through Arkema, we have access to a worldwide infrastructure and full supply chain, including innovative raw materials, more sustainable sourcing and energy-efficient production capabilities.
Anaerobic Adhesives

As engineering adhesive applications develop, they raise new challenges. These include questions of how to apply adhesives to ever-smaller and more complex items, how to accelerate curing processes and how to reduce waste, all while complying with environmental and health and safety regulations.

In response, we have developed a portfolio of ground-breaking engineering adhesives that focus on ‘by-the-dot’ bonding applications. These products sit under the Born2Bond™ brand – this name reflects our purpose and the collaborative bond we have with our customers.

NEW ENGINEERING ADHESIVES

Anaerobic Adhesives

The Born2Bond™ high-performance range of anaerobic adhesives has been formulated with sustainability and safety in the workplace in mind. Ideal for fastening and sealing processes including threadlocking, pipe sealing, retaining and gasketing, they offer a more reliable, convenient and cost-effective alternative to traditional mechanical fixings. Excellent resistance to impact, vibration, leakage and corrosion, along with high torque strength make them appropriate in both precision and heavy engineering scenarios. By replacing extensive inventory (such as washers, gaskets, pins, hemp, tapes), they can also help improve efficiency and reduce potential waste.

Delivering on our commitment to create solutions that are safer for users and better for the environment, the adhesives are not solvent based and selected grades are NSF certified. A WL Anaerobic Range specially designed to enhance the work environment and ease the EHS assessment of a new product without compromise on performance, is also available.*

As engineering adhesive applications develop, they raise new challenges. These include questions of how to apply adhesives to ever-smaller and more complex items, how to accelerate curing processes and how to reduce waste, all while complying with environmental

OUR VALUES

INNOVATION  COLLABORATION  SAFETY & SUSTAINABILITY

DESIGNED FOR USE IN MULTIPLE INDUSTRIES

AUTOMOTIVE  ELECTRONICS  GENERAL ASSEMBLY  LUXURY GOODS  MEDICAL DEVICES  MRO

SUSTAINABILITY WITHOUT COMPROMISING PERFORMANCE

<table>
<thead>
<tr>
<th>Mechanical fasteners</th>
<th>Born2Bond™ Anaerobic Adhesives</th>
<th>Born2Bond™ WL Anaerobic Adhesives*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock/Inventory</td>
<td>![ ]</td>
<td>![ ]</td>
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<tr>
<td>Long-term reliability</td>
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</tr>
<tr>
<td>Ease of application</td>
<td>![ ]</td>
<td>![ ]</td>
</tr>
<tr>
<td>Versatility of application</td>
<td>![ ]</td>
<td>![ ]</td>
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<tr>
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<td>![ ]</td>
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<td>Heat and chemical resistance</td>
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<tr>
<td>Sustainability</td>
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* Available in selected region only. Not classified as a hazardous substance/mixture under the Classification, Labelling and Packaging of substances and mixtures (CLP) Regulation (EC) 1272/2008 in EU.
Please use the Product Selector below to identify the right solutions for your bonding requirements.

**PRODUCT SELECTOR**

**THREADLOCKING**

<table>
<thead>
<tr>
<th>Standard Grades</th>
<th>WL Grades*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-assembly</td>
<td>Pre-assembly</td>
</tr>
<tr>
<td>Low Strength</td>
<td>Low Strength</td>
</tr>
<tr>
<td>Medium Strength</td>
<td>Medium Strength</td>
</tr>
<tr>
<td>High Strength</td>
<td>High Strength</td>
</tr>
<tr>
<td>TA-22</td>
<td>TA-WL</td>
</tr>
<tr>
<td>TA-43</td>
<td>TA-WL</td>
</tr>
<tr>
<td>TA-70</td>
<td>TA-WL</td>
</tr>
<tr>
<td>TA-90</td>
<td>TA-WL</td>
</tr>
<tr>
<td>See Page 24 for full specifications</td>
<td>See Page 24 for full specifications</td>
</tr>
<tr>
<td>CLICK HERE</td>
<td>CLICK HERE</td>
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<tr>
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<tr>
<td>CLICK HERE</td>
<td>CLICK HERE</td>
</tr>
</tbody>
</table>

**PIECE SEALING**

<table>
<thead>
<tr>
<th>Standard Grades</th>
<th>WL Grades*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Strength</td>
<td>Low Strength</td>
</tr>
<tr>
<td>Medium Strength</td>
<td>Medium Strength</td>
</tr>
<tr>
<td>High Strength</td>
<td>High Strength</td>
</tr>
<tr>
<td>Liquid</td>
<td>PA-42</td>
</tr>
<tr>
<td>Thixotropic/ Gel</td>
<td>PA-77</td>
</tr>
<tr>
<td>See Page 24 for full specifications</td>
<td>See Page 24 for full specifications</td>
</tr>
<tr>
<td>CLICK HERE</td>
<td>CLICK HERE</td>
</tr>
<tr>
<td>CLICK HERE</td>
<td>CLICK HERE</td>
</tr>
</tbody>
</table>

**STRENGTH**

- Increase curing speed, or for passive metals
- Operating temperature: Up to 150°C
- Operating temperature: Up to 230°C
- Operating temperature: Up to 180°C
- Operating temperature: Up to 230°C

**GASKETING**

- Instant seal**
- Flexible seal**
- Operating temperature: Up to 30°C
- Operating temperature: Up to 50°C
- Operating temperature: Up to 50°C

**GASKETING**

- Instant seal**
- Flexible seal**
- Operating temperature: Up to 30°C
- Operating temperature: Up to 50°C
- Operating temperature: Up to 50°C

**ANABORIC ACTIVATOR**

- See Page 21 for full specifications
- CLICK HERE

**RETAINING**

- Gap fill up to 0.1mm
- Increasing curing speed
- Operating temperature: Up to 180°C
- Operating temperature: Up to 180°C
- Operating temperature: Up to 180°C

**ANABORIC ACTIVATOR**

- See Page 21 for full specifications
- CLICK HERE

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** Suitable for rigid metal flange applications.
Respect for the world and workplace

We are committed to developing sustainable adhesives and production methods and to protecting the wellbeing of our customers’ workforces.

- Low-energy application processes
- Increased user comfort
- Ideal for preventative maintenance
- A WL Anaerobic Range is also available*  

APPLICATIONS AND INDUSTRIES

Born2Bond™ Anaerobic Adhesives and Service Products are suitable for major applications in target equipment and devices, including:

- Powertrains
- Engines
- Compressors
- Turbines
- Pumps
- Gearboxes
- Centrifuges
- Conveyor belts
- Electric motors
- Pipes and fittings
- HVAC
- And many more...

Born2Bond™ Anaerobic Adhesives and Service Products are used across a variety of MRO industry segments, including:

- Power generation
- Oil and gas
- Transportation
- Water utilities
- Infrastructure
- Refinery
- Petrochemical
- Marine
- Food and beverage
- Aerospace MRO
- Automotive aftermarket
- And many more...

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Born2Bond ™ Threadlocking anaerobic adhesives provide single-component, one-stop solutions for all threadlocking requirements, including preventative maintenance. Eliminating the cost and inconvenience of holding extensive inventory, these liquid adhesives fill and seal all voids to achieve a cohesive connection of metal parts that remains fixed even when subjected to extreme vibrations, temperatures or chemical substances.

**Features**
- 100% connection – no loosening
- Evenly distribute force
- Vibration resistant
- Corrosion prevention
- Single component
- Variety of viscosities and strengths
- Suitable for active and passive metals

**Typical Applications**
- Mechanical parts assembly
- Machine engineering
- Gear manufacturing
- Engines and powertrains

**Benefits**
- Increased reliability
- Longer component life
- Ease of application
- One bottle meets diverse threadlocking requirements
- Reduced costs
- Reduced storage

**Specifications**

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
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<tbody>
<tr>
<td>Viscosity</td>
<td>900-1,500</td>
<td>2,500-3,000</td>
<td>400-600</td>
<td>20-55</td>
<td>900-1,500</td>
<td>2,000-3,000</td>
<td>350-550</td>
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<tr>
<td>Fixture Time</td>
<td>20 min</td>
<td>&lt;15 min</td>
<td>10 min</td>
<td>7 min</td>
<td>&lt;30 min</td>
<td>20 min</td>
<td>10 min</td>
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<td>Breakaway Strength on Steel [ISO 10964] Unseated</td>
<td>6 Nm</td>
<td>25 Nm</td>
<td>33 Nm</td>
<td>12 Nm</td>
<td>9 Nm</td>
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<tr>
<td>Color</td>
<td>Purple</td>
<td>Blue</td>
<td>Green</td>
<td>Green</td>
<td>Purple</td>
<td>Blue</td>
<td>Green</td>
</tr>
<tr>
<td>Temperature Range</td>
<td>-55 to 180°C</td>
<td>-55 to 150°C</td>
<td>-55 to 180°C</td>
<td>-55 to 180°C</td>
<td>-55 to 180°C</td>
<td>-55 to 180°C</td>
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<td>NSF Certified</td>
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<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

See page 24 for full range

TDS and SDS available on request

* Available in selected regions only. Not classified as a hazardous substance/mixture under the Classification, Labelling and Packaging of Substances and Mixtures (CLP) Regulation (EC) 1272/2008 in EU. Always use glasses and gloves when applying adhesives.
**PIPE SEALING**

**Born2Bond™ Pipe Sealing** anaerobic adhesives are a reliable, adaptable solution, suitable for all types of threaded metal pipes and fittings, and both new installations and preventative maintenance. Filling and sealing all voids, these single component adhesives provide 100% surface-to-surface contact, achieving a cohesive, durable connection that will not fail even when subjected to vibration, extreme temperatures or chemical substances. A convenient, cost-effective alternative to conventional sealing alternatives like hemp or PTFE tapes, these adhesives eliminate the need for additional inventory.

### FEATURES
- 100% connection – no loosening
- Vibration resistant
- Corrosion prevention
- Single component
- Variety of viscosities and strengths
- Suitable for active and passive metals

### TYPICAL APPLICATIONS
- Engines and powertrains
- Pumps and compressors
- Liquid and gas storage
- Hydraulic systems
- Metal pipes and fittings

### BENEFITS
- Increased reliability
- Ease of application
- Reduced costs
- Reduced storage requirements

### FEATURES
- **BASE**
  - PA-77: Dimethacrylate ester
  - PA-42: Dimethacrylate ester
  - PA-WL*: Dimethacrylate ester

- **VISCOITY** (mPa/s)
  - PA-77: 80,000-90,000
  - PA-42: 400-800
  - PA-WL*: 100,000-200,000

- **FIXTURE TIME**
  - 60 min
  - 10-20 min
  - 30 min

- **BREAKAWAY STRENGTH ON STEEL** [ISO 10964]
  - LOOSE
    - PA-77: 11 Nm
    - PA-42: 15 Nm
    - PA-WL*: 10-20 Nm
  - COLOR
    - Yellow

- **TEMPERATURE RANGE**
  - -55 to 180°C
  - -55 to 150°C
  - -55 to 180°C

- **NSF CERTIFIED**
  - S2
  - No

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Choose the right solution using our Product Selector on Pages 6/7.

TDS and SDS available on request.
Born2Bond™ Gasketing anaerobic adhesives are a single-component, cost-effective alternative to conventional pre-formed gaskets on metal flanges. Flexible, durable and resistant to wear and tear, they can be used during installation or for preventative maintenance. Achieving 100% surface-to-surface contact, the adhesives create a cohesive, durable connection that can withstand vibration, extreme temperatures and exposure to oils, solvents and water. They also offer better stress distribution and, unlike traditional gaskets, do not require any ‘bedding-in’.

**FEATURES**
- Outstanding fatigue strength
- Vibration resistant
- Corrosion prevention
- Prevents sagging and micro-movement
- Higher power transmission
- Single component
- Variety of viscosities and strengths
- Instant and flexible seal options
- Suitable for active and passive metals

**TYPICAL APPLICATIONS**
- Engines and powertrains
- Pumps and compressors
- Storage of liquids and gas
- Gearboxes and transmissions

**BENEFITS**
- Increased reliability
- Less machining
- Easy-to-automate assembly
- Reduced costs
- Reduced storage requirements

**BASE**
- GA-74: Dimethacrylate ester
- GA-18: Mod. Acrylate
- GA-10: Dimethacrylate ester
- GA-WL*: Instant Gasket
- GA-WL**: Flexible Gasket

**VISCOSITY (mPas)**
- GA-74: 30,000-50,000
- GA-18: 200,000-800,000
- GA-10: 40,000-140,000
- GA-WL*: 5,000-20,000
- GA-WL**: 23,000-35,000

**FIXTURE TIME**
- GA-74: 15-30 min
- GA-18: <1 hr
- GA-10: <1 hr
- GA-WL*: 45 min
- GA-WL**: 40 min

**TENSILE SHEAR STRENGTH ON STEEL (ISO 4587)**
- GA-74: 5-8.5 N/mm²
- GA-18: >5 N/mm²
- GA-10: <5 N/mm²
- GA-WL*: 8.5 N/mm²
- GA-WL**: >5 N/mm²

**COLOR**
- Orange
- Red
- Pink

**TEMPERATURE RANGE**
- GA-74: -55 to 150°C
- GA-18: -55 to 150°C
- GA-10: -55 to 150°C
- GA-WL*: -55 to 230°C
- GA-WL**: -55 to 230°C

**NSF CERTIFIED**
- GA-74: No
- GA-18: S2
- GA-10: No
- GA-WL*: No
- GA-WL**: No

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Always use glasses and gloves when applying adhesives.

See page 24 for full range.

Choose the right solution using our Product Selector on Pages 6/7.
Born2Bond™ Retaining anaerobic adhesives are a cost effective, adaptable alternative or addition to mechanical retaining processes. Capable of bonding all types of cylindrical assemblies, these single-component solutions also seal all metal joints to eliminate the risk of fretting corrosion. They achieve 100% surface-to-surface contact, producing a cohesive, durable connection capable of withstanding vibration, extreme temperatures and chemical substances.

**FEATURES**
- High power transmission
- Resistance to dynamic loads
- Vibration resistant
- Corrosion prevention
- Single component
- Variety of viscosities and strengths
- Suitable for active and passive metals

**TYPICAL APPLICATIONS**
- Gear manufacturing
- Machine engineering
- Bearing assembly
- Drive shafts
- Conveyor belts
- Centrifuges
- Turbines

**BENEFITS**
- Increased reliability
- Extends component life
- Enables more precise, compact design
- Reinforces or replaces machined elements
- Reduces costs

<table>
<thead>
<tr>
<th>BASE</th>
<th>RA-38</th>
<th>RA-03</th>
<th>RA-20</th>
<th>RA-41</th>
<th>RA-48</th>
<th>RA-60</th>
<th>RA-WL*</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASE</td>
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<td>Dimethacrylate ester</td>
<td>Urethane</td>
<td>Methacrylate</td>
<td>Dimethacrylate</td>
<td>Dimethacrylate ester</td>
</tr>
<tr>
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<td>100-150</td>
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<td>400-800</td>
<td>400-600</td>
<td>Paste</td>
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<tr>
<td>COMPRESSIVE SHEAR STRENGTH ON STEEL (120 kPa)</td>
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<td>&gt;24N/mm²</td>
<td>&gt;24N/mm²</td>
<td>&gt;24N/mm²</td>
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<td>&gt;24N/mm²</td>
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<tr>
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<tr>
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<td>-55 to 155°C</td>
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<td>No</td>
<td>No</td>
<td>55</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
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Choose the right solution using our Product Selector on Pages 6/7. TDS and SDS available on request.
ANAEROBIC ADHESIVES RANGE

THREADLOCKING

**THREADLOCKING PRODUCT RANGE**

*Born2Bond™* Threadlocking adhesives are formulated in low, medium or high strength and available in 50ml and 250ml bottles, suitable for both manual and automated dispensing.

- **50ml bottles for TA-22, TA-43, TA-70, TA-90 and TA-WL**
- **250ml bottles for TA-22, TA-43, TA-70, TA-90 and TA-WL**

PIPE SEALING

**PIPE SEALING PRODUCT RANGE**

*Born2Bond™* Pipe Sealing adhesives are supplied in 50ml and 250ml bottles, suitable for manual and automated dispensing. Manual dispensing-only options are provided by a 50ml accordion or 250ml tube.

- **50ml bottles for PA-42**
- **250ml bottles for PA-42**
- **50ml accordion bottles for PA-77 and PA-WL**
- **250ml tubes for PA-77 and PA-WL**

GASKETING

**GASKETING PRODUCT RANGE**

*Born2Bond™* Gasketing adhesives are supplied in 50ml (accordion) and 250ml (tube) for manual dispensing processes. A 300ml cartridge option enables both manual and automated dispensing.

- **50ml accordion bottles for GA-10, GA-18, GA-74 and GA-WL**
- **250ml tubes for GA-10, GA-74 and GA-WL**
- **300ml cartridges for GA-18 and GA-WL**

RETAINING

**RETAINING PRODUCT RANGE**

*Born2Bond™* Retaining adhesives are offered in 50ml and 250ml bottles, suitable for both manual and automated dispensing. A 50ml accordion is available, suitable for manual dispensing only.

- **50ml bottles for RA-03, RA-20, RA-38, RA-41, RA-48 and RA-WL**
- **250ml bottles for RA-03, RA-20, RA-38, RA-41, RA-48 and RA-WL**
- **50ml accordion bottles for RA-60**

*Available in selected regions only. Not classified as a hazardous substance/mixture under the Classification, Labelling and Packaging of Substances and Mixtures (CLP) Regulation (EC) 1272/2008 in EU. Always use glasses and gloves when applying adhesives.*
To ensure optimal performance of Born2Bond™ adhesives, we provide a selection of easy-to-use ancillary products for effective surface preparation, faster curing and removal of cured product.

**Born2Bond™ Anaerobic Activator** is a solvent-based product that accelerates and supports anaerobic adhesive curing on passive metals like stainless steel, chromated metals and zinc. It can also accelerate cure speed in larger gaps and increase bonding strength.

**Born2Bond™ Pre-Bonding Cleaner** is suitable for cleaning of all kinds of substrates prior to bonding. Solvent-based and supplied in aerosol form, it will easily remove grease, oil, lubricants and other contaminants without leaving any residue.

**Born2Bond™ Adhesive & Gasket Remover** is easy to apply and creates a foam-like layer, softening old gaskets and cured adhesives for removal within 15 minutes.

**FEATURES**
- Fast-evaporating with no residue
- Can be used at low temperatures (<5°C)
- On-part lifetime of 30 days

**FEATURES**
- Fast evaporation
- No residues
- Suitable for multiple substrates including sensitive plastics

**FEATURES**
- Removes cured gaskets and adhesives within 15 minutes
- Minimal damage to flanges and surfaces
- Suitable for multiple substrates

**TYPICAL APPLICATIONS**
Stainless steel bolts and shafts, threadlocking, pipe sealing, gasketing, retaining.

**TYPICAL APPLICATIONS**
Metal and plastic parts, composite materials, flanges, bolts, shafts.

**TYPICAL APPLICATIONS**
Cleaning of surfaces, flanges, gearboxes, metal housings, pumps.

Always use glasses and gloves when applying adhesives.
Substrate and surface preparation

The nature of the substrate and its surface impacts the bondline performance.

- The surface should be cleaned with the appropriate cleaner to eliminate surface contaminants and increase wettability before applying the adhesives and to achieve the best performance.
- For slightly oily surfaces, an oil tolerant product such as Born2Bond™ TA-43 and Born2Bond™ RA-03 can be used.
- For cleaning, we recommend Born2Bond™ Pre-Bonding Cleaner.
- To remove cured product, we recommend Born2Bond™ Adhesive & Gasket Remover.
- Mechanical pretreatment (sanding, grinding, laser etching, etc.) will improve the performance, especially for retaining and gasketing applications.
- The curing speed is dependent on material, temperature and gap size.
- To improve the curing speed, or shorten the fixture time, we recommend using Born2Bond™ Anaerobic Activator.

Influences on curing speed

- **Temperature**: the higher the temperature, the faster the adhesive will cure. Low temperatures will slow down the curing.
- **Material**: Anaerobic adhesives will cure best on “active” substrates like mild steel, aluminum and copper alloys. “Passive” substrates like stainless steel and chrome will slow down the curing.
- **Gap size**: Smaller gaps will have a faster curing than bigger gaps.
- **Activator**: The use of an activator such as Born2Bond™ Anaerobic Activator will speed up the curing and is recommended on passive materials or cold environments.

Application process

The method in which adhesive is applied impacts bondline performance.

- Bondline performance depends on the quantity and consistency of adhesive applied to the surface.
- Adhesives can be applied using automatic dispensing equipment and/or manual systems (e.g. syringes, bottles).
- For precise dosing, use dispensing tips made of plastic (PP, PTFE). Do not use metal dispensing tips. Fully automated systems will improve the control and speed of dispensing.

How do anaerobic adhesives cure?

- Anaerobic adhesives cure when excluded from oxygen and with metal contact.
- When applied, the adhesive stays liquid because of the oxygen in the air.
- When assembled (threadlocking, pipe sealing, retaining, gasketing) the cure will start.
- After full cure, the adhesive is a highly-crosslinked polymer with strong durability.
## Product Features

The list of features in this table will help you identify which products best match your needs.

<table>
<thead>
<tr>
<th>NSP Certified</th>
<th>Base</th>
<th>Fluorocarbon</th>
<th>Colour</th>
<th>Viscosity (mPa.s)</th>
<th>Temperature Range</th>
<th>Fixture Time (Min)</th>
<th>Strength</th>
<th>Max. Thread Size/Gap Fill</th>
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</thead>
<tbody>
<tr>
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<td>&gt;30</td>
<td>9Nm**</td>
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<td>Purple</td>
<td>900-1,500</td>
<td>-55 to 180°C</td>
<td>20</td>
<td>6Nm**</td>
</tr>
<tr>
<td>TA-WL Medium Strength</td>
<td>No</td>
<td>Dehydroacrylate</td>
<td>Yes</td>
<td>Blue</td>
<td>2,000-3,000</td>
<td>-55 to 180°C</td>
<td>20</td>
<td>20Nm**</td>
</tr>
<tr>
<td>TA-43</td>
<td>56</td>
<td>Modified Methacrylate</td>
<td>Yes</td>
<td>Blue</td>
<td>2,500-3,000</td>
<td>-55 to 180°C</td>
<td>&lt;15</td>
<td>25Nm**</td>
</tr>
<tr>
<td>TA-WL High Strength</td>
<td>No</td>
<td>Dehydroacrylate</td>
<td>Yes</td>
<td>Green</td>
<td>350-550</td>
<td>-55 to 180°C</td>
<td>10</td>
<td>20Nm**</td>
</tr>
<tr>
<td>TA-70</td>
<td>56</td>
<td>Dehydroacrylate</td>
<td>Yes</td>
<td>Green</td>
<td>400-600</td>
<td>-55 to 180°C</td>
<td>10</td>
<td>33Nm**</td>
</tr>
<tr>
<td>TA-90</td>
<td>No</td>
<td>Dehydroacrylate</td>
<td>Yes</td>
<td>Green</td>
<td>20-55</td>
<td>-55 to 150°C</td>
<td>7</td>
<td>12Nm**</td>
</tr>
</tbody>
</table>

| PA-WL Pipe Sealant | No | Dehydroacrylate | Yes | Yellow | 100,000-200,000 | -55 to 180°C | 30 | 10-20N/mm | M80 |
| PA-77 | 52 | Dehydroacrylate | No | Yellow | 80,000-90,000 | -55 to 180°C | 60 | 11Nm | M80 |
| PA-42 | No | Dehydroacrylate | Yes | Brown | 400-800 | -55 to 150°C | 10-20 | 15Nm | M36 |

| GA-WL Instant Gasket | No | Dehydroacrylate | Yes | Orange | 5,000-20,000 | -55 to 150°C | 45 | 8.5N/mm² | 0.3mm |
| GA-74 | No | Dehydroacrylate | Yes | Orange | 30,000-50,000 | -55 to 150°C | 15-30 | 5.8-5.9 N/mm² | 0.3mm |

| GA-WL Flexible Gasket | No | Dehydroacrylate | Yes | Red | 23,000-35,000 | -55 to 150°C | 40 | <15N/mm² | 0.25mm |
| GA-18 | 52 | Dehydroacrylate | No | Red | 200,000-800,000 | -55 to 150°C | 112 hr | <15N/mm² | 0.25mm |
| GA-10 | No | Modified Acrylate | No | Pink | 40,000-140,000 | -55 to 230°C | <12 hr | <15N/mm² | 0.25mm |

| RA-WL High Strength | No | Dehydroacrylate | Yes | Green | 350-550 | -55 to 150°C | >30 | >12N/mm² | 0.15mm |
| RA-38 | No | Urethane Acrylate | No | Green | 2,000-3,000 | -55 to 180°C | 10 | >25Nm/mm² | 0.2mm |
| RA-03 | 55 | Methacrylate | No | Green | 100-150 | -55 to 180°C | 15 | >20Nm/mm² | 0.15mm |
| RA-20 | No | Dehydroacrylate | No | Green | 5,000-12,000 | -55 to 230°C | 60 | >20Nm/mm² | 0.2mm |
| RA-41 | No | Dehydroacrylate | No | Yellow | 400-800 | -55 to 150°C | 20-30 | >18N/mm² | 0.3mm |
| RA-48 | No | Urethane Methacrylate | No | Green | 400-600 | -55 to 180°C | 10-15 | >26Nm/mm² | 0.15mm |
| RA-60 | 55 | Dehydroacrylate | No | Grey Paste | -55 to 150°C | 10-15 | >18N/mm² | 0.5mm |


### BORN2BOND™ Academy Training

Understanding the specifics of Born2Bond™ products, how they are used, and the properties that make them unique is essential to making the most of their value. Bostik’s Born2Bond™ Academy offers in-depth training of the products and provides access to resources for technical learning, troubleshooting and more, with all participants receiving a certificate of completion.

Our global team of experts have structured the training to give you a deeper understanding of:

- Technologies
- Applications
- Equipment

The Born2Bond™ Engineering Adhesives team is ready to provide additional tailor-made training, tools and materials, including:

- Case studies
- Application videos
- Product demos
- Demo kits
- Plant surveys
- Seminars and webinars
- Solution guides
- MRO Industry Programs
- And many more...
Born2Bond™ offers innovative solutions for a wide range of applications and industries. These solutions will enable our customers to improve efficiencies, increase design opportunities and enhance sustainability, making it easier for them to manufacture better, safer and more innovative products.
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