

LOW ODOR, NON-FLAMMABLE ADHESIVES WITH NONE OF THE COMPROMISE

ARALDITE® 2080 and ARALDITE® 2081 adhesives

Low odor, non-flammable, and primer-free acrylate adhesives with exceptional bond performance on multiple substrates and a low toxicity profile.

MADE POSSIBLE





UNIQUE STRUCTURAL ADHESIVES THAT SAFEGUARD USER WELL-BEING

To deliver high quality products as profitably as possible, it's essential that you use a structural adhesive that enhances productivity and delivers long-lasting, reliable results. But that's not all – as a responsible employer it's also crucial that you safeguard the well-being and health of your employees.

Until now, manufacturing specialists like you across the Transportation, Wind, and General Assembly industries have been limited to adhesive products that present challenges in odor, flammability, higher toxicity profiles and extensive surface preparation requirements.

INTRODUCING THE NEW ARALDITE® 2080 AND ARALDITE® 2081 ADHESIVES

ARALDITE® 2080 and ARALDITE® 2081 adhesives are new structural acrylate adhesives that create high-strength and high-elongation bonds with outstanding stress and impact resistance and fast reactivity times.

Most importantly, unlike many other structural adhesives on the market, ARALDITE® 2080 and ARALDITE® 2081 adhesives provide an effective solution to multiple challenges, without compromising performance.

Our new structural adhesive comes in three versions depending on your production requirements:

ARALDITE® 2080-05 & 2080-15 adhesive – for metal, composites and some plastics, with good temperature resistance

ARALDITE® 2081-10 adhesive – specially designed for engineering plastics (with the exception of polyolefins and low surface energy materials)

↓ 90% Reduce odor by up to 90% compared to traditional MMA products

2x Faster to apply and reach final bond strength than a PU

Low odor – with up to 90% less odor than MMA products, ARALDITE® 2080 and ARALDITE® 2081 adhesives help you to increase end-customer and employee well-being and satisfaction, especially in enclosed working environments.

Non-flammable classification (>95°C flash point) – unlike traditional MMA products, ARALDITE® 2080 and ARALDITE® 2081 adhesives help to minimize costs for safety training, storage, transportation and equipment. In addition, they eliminate the need for the installation and maintenance of designated flammable storage areas.

No primer – ARALDITE® 2080 and ARALDITE® 2081 adhesives do not need a primer, compared to polyurethane (PU) and epoxy products, which reduces application time by half and lowers costs, while providing the same bonding strength.

Low toxicity profile – ARALDITE® 2080 and ARALDITE® 2081 adhesives have an improved GHS classification, which means you will save on personal protective equipment costs.



CASE 1:

BONDING INSIDE WIND TURBINE BLADE ADD-ONS

Increase worker well-being and EHS standards by reducing the odor inside the blade

Traditionally, wind turbine manufacturers and maintenance specialists have used MMA or PU adhesives when bonding add-ons on wind blade composite internal structures. However, both the strong smell of MMA adhesives and the toxicity of PU adhesives resulted in significant issues regarding worker well-being and health, respectively.

The new ARALDITE® 2080 adhesive has been approved for this specific application, giving a highly versatile, low odor and low toxicity solution. In addition to this, ARALDITE® 2080 adhesive provides fast snap curing and other similar features to an MMA. With high performance bonding capabilities that are exceptionally reliable over the long term, ARALDITE® 2080 adhesive helps businesses across the global Wind industry to create a safer and healthier working environment for their employees.

Key benefits

- Fast processing and snap cure
- Good bonding to metal and composite materials
- No odor for areas inside the blade
- Low toxicity



CASE 2:

BONDING METAL AND COMPOSITE STUDS AND STRUCTURES

A low odor, non-flammable alternative to traditional MMA adhesives

Often in the Transportation, Oil and Gas, and Marine industries, it is necessary to bond metal and composite studs to a metal or composite structure. Previously, the only option was to use an MMA adhesive. However, as these studs are mainly bonded in closed spaces, such as inside a compartment of the vessel itself, the overpowering smell was a serious issue for worker well-being.

The new ARALDITE® 2080 adhesive gives the perfect solution by providing the strength of an MMA without the odor. In addition, with its non-flammable properties, ARALDITE® 2080 adhesive also helps to minimize costs for safety, training, storage, transportation and equipment, and eliminates the need for the installation and maintenance of designated flammable storage areas.

As a result, ARALDITE® 2080 adhesive increases profitability and workers can easily handle the product in a closed environment with no concerns for their safety, health, or the environment.

Key benefits

- Low odor for use in closed spaces
- No flammable pictogram
- No health hazard pictogram

CASE 3:

BONDING DISSIMILAR INTERIOR PARTS ON TRAINS

Reduce complexity and inventory when bonding multiple materials

Bonding different materials for small- and mid-sized interior parts inside rail coaches traditionally requires multiple adhesives, all with their own conditions for use.

Approved for this specialized application and with strong adhesion to metals, composites, and thermoplastic materials, ARALDITE® 2081 adhesive is an all-in-one solution. This low odor, low toxicity adhesive with fast snap curing provides good adhesion on a wide variety of substrates, including plastics (e.g., ABS, polycarbonate, etc.).

This means reduced application complexity, simpler inventory management, and less worker training. Elongation of more than 60% ensures long-term durability and resistance to dynamic loading.

Key benefits

- All-in-one solution for multiple materials (including plastics)
- Exceptional bonding for dissimilar substrates
- Low odor compared to MMA products
- Elongation rate of more than 60%



CASE 4:

BONDING CHANNEL LETTER SIGNAGE WITH SAFETY AND RELIABILITY

Increase production throughput without impacting user well-being

The production of channel letter signage or sign boxes is usually done in enclosed facilities, requiring adhesive products such as MMA that create a very unpleasant smell. As the process can take several hours to complete, this can be a serious problem for the well-being of workers, who often require more breaks – and therefore are less productive.

The new ARALDITE® 2081 adhesive minimizes odor while still providing the same durability and bonding strength as MMA products. Not only does this increase worker productivity and well-being, but it also produces a highly reliable structural integrity that is ideal for sign manufacturing of any size.

Key benefits

- Exceptional bonding performance
- Greater workplace productivity
- Low odor compared to MMA products

WHAT MAKES ARALDITE® 2080 AND ARALDITE® 2081 ADHESIVES DIFFERENT?

ARALDITE® 2080 and ARALDITE® 2081 structural acrylic adhesives uniquely combine **high strength, high durability,** and **high elongation** for metals, composites and plastics, while offering a **low odor** and **non-flammable** profile. They are available in three open times to best suit your application needs.

ARALDITE® 2080 ADHESIVE

SUPERIOR PERFORMANCE

5/15 mins
Pot life at room temperature

194°F Maximum continuous operating temperature*	>2,610 psi After cataplasma aging test**
>3,625 psi Tensile strength	>50% Elongation at break

15/30 mins
Fixture time at room temperature

174,000 psi
Tensile modulus

For metal, composites, and some plastics

ARALDITE® 2081 ADHESIVE

SUPERIOR PERFORMANCE

10 mins
Pot life at room temperature

158°F Maximum continuous operating temperature*	>1,740 psi After cataplasma aging test**
>2,466 psi Tensile strength	60-80% Elongation at break

20 mins
Fixture time at room temperature

116,030 psi
Tensile modulus

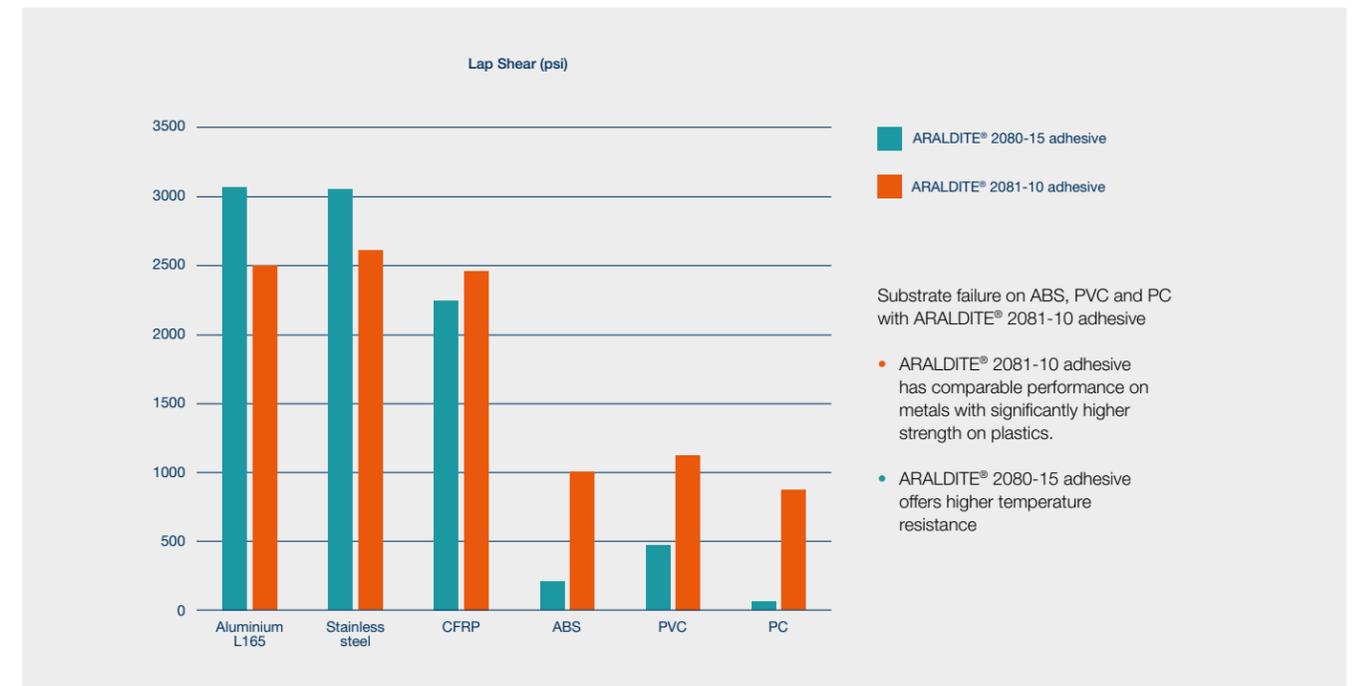
Specially designed for engineering plastics

*For the maximum continuous operating temperature, we consider the maximum temperature for which the residual lap shear strength is 1/3 of the lap shear strength at room temperature or the temperature for which the residual lap shear strength is ≤ 5 MPa. **after 7-days ISO 9142 E2

With our Material Models, you get fast and accurate simulations when qualifying adhesives for your project. Click to choose your product.

ARALDITE® 2080-05 adhesive	ARALDITE® 2080-15 adhesive	ARALDITE® 2081-10 adhesive
		Coming soon

LAP SHEAR CHART



IMPROVED PRODUCTIVITY

↑50%
Up to 50% faster process and no additional primer costs

TECHNOLOGY

Two-component acrylic

50%
50% improved GHS classification compared to alternative products

EN 45545-2

Conforms to HL3 requirements, Class R1 and R7, of the Railway European Fire Protection Standard EN 45545-2

Low odor	Non-flammable
No primer	Less toxicity

MADE POSSIBLE

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Enriching lives through innovation

Huntsman Advanced Materials

At Huntsman Advanced Materials, we make things possible. Serving many of the world's leading businesses across virtually every industry, we enable greater innovation, performance and sustainability to address global engineering challenges and contribute towards a better quality of life.

Our capabilities in high-performance adhesives and composites, delivered by more than 1600 associates, support over 2000 global customers with innovative, tailor-made solutions and more than 1500 pioneering epoxy, acrylic, phenolic and polyurethane-based polymer products.

We operate synthesis, formulating and production facilities around the world



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