The background of the top half of the image is a photograph of an aluminum car body in a factory setting. The car is shown from a side-rear perspective, with its doors open, highlighting the intricate metal framework and joints. The lighting is bright, emphasizing the metallic texture and the complex engineering of the vehicle's chassis.

Delivering proven solutions to the challenge of aluminum

Unmatched speed-to-market solutions for a true competitive advantage

Automotive design and materials engineers turn to UNISEAL for customized solutions to meet their unique challenges in bonding and sealing aluminum body parts on cars and light trucks.

Weight reduction

UNISEAL formulations provide greater design freedom that facilitates significant weight reduction, lower emissions and improves fuel economy without sacrificing a vehicle's structural integrity and comfort.

Structural adhesives

- Replace mechanical fasteners and minimize welds
- Strengthen parts to allow use of thinner gauge and lighter weight materials
- Impact resistance down to -40°F (-40°C)
- Long-term fatigue resistance
- Bond a wide variety of substrates, including dirty, "oily" surfaces
- High and low modulus range

Metal reinforcement

- Including the use of thin gauge substrates gives engineers ultimate design flexibility, significantly expanding the material base and adding complex design options
- Can be supplied as die-cut, prefomed laminates or pumpable products, enabling manufacturers to customize their process to match core competencies
- Sprayable or extrudable adhesive replaces extruded fiberglass-backed patches for optimum application efficiency
- Excellent adhesion to "oily" automotive steel or aluminum
- High performance at a low film thickness
- Fast skin-over and full cure times
- Sag and slump resistant
- Eco-friendly products

-40°

Anti-chip and underbody coatings

- Extend the useful life of OEM products and improve long-term aesthetics
- Available in PVC or non-PVC formulations to meet your specific requirements
- Nearly 100% solids, extremely low in VOCs and contain no heavy metals or other harmful materials. Waterborne also available.
- High elongation provides excellent resistance to chipping
- Available in paintable versions to further improve product aesthetics



NVH reduction

- Available in preformed or sprayable product
- Formulations incorporate advanced polymer technologies to deliver optimum dampening and maximize composite loss factors
- Pumpable and sprayable products cure with heat exposure

Anti-flutter

- Products can be formulated to exacting specifications in order to fit your unique application requirements
- Expansion range from 0% to over 1000%, providing a wide window of product performance
- Uncured materials will not sag or slide and have excellent adhesion, even through standard stamping lubricants
- Weldability provides additional advantage to body shops. Products can also be formulated for paintability, to improve aesthetics.
- Chemistry options include both PVC and non-PVC based products
- Commonly used on all automotive closures

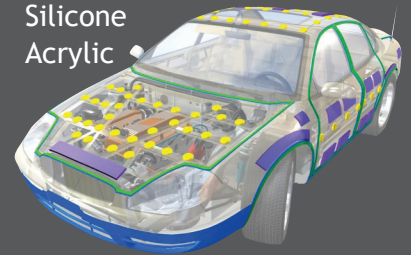
Innovative custom solutions to meet your unique challenges

Custom formulations can give you greater design and manufacturing freedom. This, combined with unmatched speed-to-market, can lead to achieving true advantages that will take your competition years to reach.

UNISEAL can provide a custom solution for every step in your process. By optimizing formulations to specifically fit your product design and manufacturing process, we can help you increase throughput and efficiency, along with improved quality ratings.

Innovative developments in polymeric chemistries mean UNISEAL's research and development labs are sparked by the industries demand for leaner, lighter, more cost efficient and environmentally friendly solutions in a variety of materials, including:

- Hybrid epoxies
- Polyurethane
- Silicone
- Acrylic



2014 Frost & Sullivan Product Leadership Award



UNISEAL was recently awarded the 2014 North American Frost & Sullivan

Award for Product Leadership. The award recognizes UNISEAL's ability to develop need-based solutions to suit a wide range of automotive and industrial bonding needs.

"UNISEAL has responded to automotive Original Equipment

Manufacturers' (OEMs') desire for lighter and safer automobiles with a range of off-the-shelf and customized adhesive and sealant products," says Frost & Sullivan Research Analyst Ankit Mittal. "Although its products are primarily engineered to help bond different combinations of materials, they also address other notable issues such as susceptibility to corrosion factors of different materials and vulnerability to expansion when dissimilar metals come into contact," added Mittal.

UNISEAL is a global supplier of specialty adhesives and sealants. Our products are custom developed to help you quickly tackle your most difficult challenges.