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# Pricing Guidelines for Automotive Adhesives



A close-up photograph of the rear of a dark-colored car, focusing on the trunk lid and the right-side taillight. The taillight is illuminated with a warm, orange-red glow. The car's body panels are dark and reflective. The background is blurred, showing what appears to be a parking garage or industrial setting.

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## Find Value in Your Adhesives

You've set out to find a bonding solution that will offer you the best value in the balance between quality and price. What you may not realize is that the materials you're bonding are just as relevant as the materials of the bonding agent you'll ultimately choose.

As manufacturers are increasingly tasked with bonding dissimilar materials—steel, aluminum, magnesium, carbon fiber, composites, plastics—in today's lightweight vehicles, automakers have had to move away from traditional metal welding and fastening methods. Frost & Sullivan forecasts a \$3.2 billion increase in annual sales of automotive adhesives and sealants between 2017 and 2024.<sup>1</sup> NBC29 shared similarly optimistic numbers, with a projected CAGR of 5.2% for the automotive adhesive and sealants market during 2019-2025.<sup>2</sup>

This is largely due to the incredible pricing value to be found in today's automotive adhesive tapes and films that, as Assembly Magazine states, "enable engineers to lower the total cost of assembly and eliminate time-consuming procedures and cumbersome equipment."<sup>3</sup>



With new US tariffs posed to dramatically impact the automotive industry, it's more important than ever before to find this sort of cost-saving, time-saving value. Jeff Schuster, senior vice president of forecasting at LMC Automotive, points out that with new 2018 vehicles averaging around \$32,000 after discounts, "a 25 percent tariff likely would increase prices by about \$4,000 to \$5,000 per vehicle."<sup>4</sup> Many predict that automakers will spread these necessary cost increases out across their product lines, regardless of the country of origin for a particular car or its parts, so that no one model is disadvantaged.

To keep on top of your budget and minimize the effects that industry changes can have on your business, you'll first need to understand the factors that guide automotive adhesive pricing. Here are a set of guidelines for achieving the attractive cost savings in your adhesive products that will keep your business competitive.



## Material Matters

OEMs must always consider industry requirements, environmental factors, and quality certifications when selecting the ideal adhesive for the job. While materials with superior strength are usually desirable, they may not be necessary or even practical for every place on the vehicle.

A thick, robust adhesive film or tape could lack the outstanding surface followability of a thinner or more flexible material. This might mean it's more than simple cost savings that push you towards the lighter option for bumpy or irregular spots. An investment in specialty materials for a handful of small,

tricky, or heavily stressed places could make practical sense, whereas it might be an unrealistic investment for widespread locations on thousands of parts.

The ideal choice comes down to a marriage between affordability and quality. There are suitable adhesives available to meet every price point, but some materials simply cost more to create. Three primary factors will point you towards your sweet spot on that pricing continuum: core/backing material, type of adhesive layer(s), and the scope of your project.

## CORE

Your selection of polyethylene, urethane, or ionomer for a film backing does more than affect the precise moisture, chemical, and scratch resistance properties of your adhesive. Each material incurs its own unique costs in crafting the adhesive, which will affect what a supplier will be able to quote you in a final price.

Moreover, most materials come in more than one thickness. Some projects will benefit from a lean 2ml polyethylene film that is lightweight and highly flexible, but a consultation with your supplier could reveal that an investment in the sturdier 3ml variety is worth it for your particular purpose.

## ADHESIVE

While the most durable adhesives are generally what you're looking for, they aren't always the ideal choice. You can save on costs by choosing an adhesive with a less specialized chemical composition that is still more than strong enough for the task you're going to ask of it. Decorative trim inside the cabin or on the dashboard, for example, doesn't require adhesives that are impervious to snow and rain, or that stand up to the repeated impacts faced by cushioning films in doors and hatches.

Sometimes, a weaker adhesive is even an advantage. Consider painter's tape: the primary benefit of the tape is that it releases easily (without damaging underlying paint) and leaves no marks or residue. Aluminum wheel protection films are a perfect example of a time when an easy-peeling, residue-free adhesive is both cost-efficient and desired.

On the other hand, structural adhesives strive to improve vehicle rigidity and replace (or even outperform) traditional metal welds and mechanical fasteners. To accomplish this on body panels that need to survive years of service and intense wind pressures, you'll want to commit a portion of your budget to the very strongest adhesives.

Finally, don't forget that every core of double-sided pressure-sensitive adhesives is encapsulated by TWO adhesive layers, which necessarily impacts your total cost.

## VOLUME

Never underestimate the impact of the economy of scale. You will nearly always be able to achieve the best possible price point if you plan to use the adhesive in sweeping applications across thousands of parts. When suppliers have the security of a high-volume purchase—or the knowledge that you'll need to keep their adhesives in-stock well into the future—it'll be much easier for them to offer a competitive price since they know you're likely to return to them in the future.

Small orders for infrequently requested specialty tapes will require the supplier to devote time and resources to adjust their equipment and stock for your production run, but these accommodations are costly if they are short-lived. Try to determine your ideal needs with a consultation and samples so that you can confidently place a sizable upfront order, rather than purchasing a more limited quantity as a sort of trial run. This will ultimately help both you and your supplier save money.



## Start at the End: What's Your Goal?

So much of pricing for automotive adhesives depends upon your needs. For instance, you may have entered your search with a particular price point in mind, and need to stay on target as suppliers bid for your business. You also know that the makeup of your parts (are you bonding steel to aluminum or composite to carbon fiber?) will radically affect the types of adhesives suppliers are going to recommend.

It's difficult to accurately discuss pricing guidelines until you've settled upon your goals. Come to a supplier with the end result in mind—a clear description of your purpose, scope, and materials—and work backward toward the adhesives that will best fit the goals of your budget and your bonds.

### STAY ON TARGET

If you've got a firm price target (or even a negotiable one), try to open your consultation with a clear indication of where you want to be in the end. This will help the supplier to make more helpful and targeted suggestions.

A price range enables the supplier to save you time. They can narrow an overwhelming catalog down to a handful of useful, high-quality adhesive options that simultaneously serve your needs and match your financial interests.

### BUILD ON BONDS

Your substrate and specs have a significant effect on price because they determine which kinds of adhesives are needed to create strong bonds. After price, the next factor a supplier will consider to recommend an adhesive product is what has to stick to what.

Getting steel attached to aluminum is tricky. You can't weld it, mechanical fasteners alone won't create a barrier that prevents galvanic corrosion, and they continuously intersect in modern automotive design. This is why so many automakers are turning to versatile adhesives that can bond dissimilar materials for mixed-material specs. However, just because it can bond steel and aluminum doesn't mean it's ideal for plastic-to-plastic, or steel-to-composite, or plastic-to-carbon-fiber.

Furthermore, each product line of film and tape likely has a variety of different adhesives available to suit the core/backing to your desired substrate. Spell out exactly how it will be used so your supplier can give you an accurate list of adhesives that will work with those materials, and what sort of costs you can expect.



## Know Your Options

If you want to build a budget for automotive adhesives in your design specs, there are certain products you should be looking for. While liquid adhesives have a long history in the industry, it's pressure sensitive adhesive films and tapes that offer the highest value and performance at the lowest price in today's market.

According to ASI, "pressure sensitive adhesives (PSAs) usually offer the best value, given their affordability, ease of use and clean application, when compared to alternative bonding options like mechanical fasteners or liquid adhesives."<sup>5</sup> Value-conscious suppliers maintain diverse portfolios of PSAs to help OEMs meet their price point needs with these reliable, inexpensive bonding agents.

Here are some of the industry-transforming PSAs that can meet your pricing guidelines while outperforming traditional welds, liquids, fasteners, paints, and protective coatings:



**WHEEL FILMS**



**BLACKOUT TAPE**



**ANTI-CHIPPING  
AND PROTECTION  
TAPES**



**PLASTER  
HARNESS TAPE**



**ANTI-VIBRATION TAPE**

## **WHEEL FILMS**

Fresh aluminum wheels are a significant beauty-point for a new vehicle. Preserve their sleek luster and prevent corrosion on brake discs and rotors by safeguarding them during packaging, shipping, and assembly with easily peeled protective wheel films.

## **BLACKOUT TAPE**

Save money and time with blackout tapes that apply more easily than black paint or coatings on window sashes and pillars. For such small elements, the paint—on its own—is not expensive. But the inefficient and tricky process (compared to large body panels) makes blackout tape a much higher value pick.

## **ANTI-CHIPPING & PROTECTION TAPES**

The latest anti-chipping tapes can protect high impact areas from scratches, chips, and rust that happen when struck by objects kicked up on the road. Unlike older models, today's coated urethane tapes offer superior weatherability and transparency (without older urethane's tendency to yellow over time) without impacting the price. Ionomer protection tapes are a new advancement with impressive shock absorption at an even lower cost than older protection tapes.

## **PLASTER HARNESS TAPE**

It's cheaper and more convenient to rely upon highly durable and heat-resistant automotive tapes for fixing wire harnesses under the hood than more cumbersome mechanical fasteners. Modern automotive harness tapes will remain safely adhered, even in the heat of the engine compartment, for many years.

## **ANTI-VIBRATION TAPE**

Polyethylene foam tapes can dampen vibrations to eliminate squeaking, rattling, and buzzing in all of the many small plastic parts that go into the cabin or trim elements. When considering the very affordable pricing of these tapes, also keep in mind all of the cost-savings you'll realize in the reduced assembly time compared to mechanical fasteners and liquid adhesives.

All of these films and tapes are already heavily relied upon by automakers and should be a part of any pricing consultation with an adhesive supplier. Non-woven PSAs like these are a booming market that an April 2019 report from ASI expects will register a CAGR of "8.71% in terms of value between 2018 and 2023" while the market grows from "\$2 billion in 2018 to \$3.1 billion by 2023."<sup>6</sup>

## How to Get a Quote

The RFQ process for automotive adhesives can be both straightforward and collaborative if you come prepared. Usually, it proceeds like this:

1. The purchasing party provides spec details to the adhesive supplier, and potentially a price point they want to meet. Thorough details of the spec that is required (material, size, thickness, properties, annual usage volume, etc.) help the supplier to serve your needs.
2. Next, the supplier will bring this info to an internal discussion where they can filter their portfolio of products down to the most suitable options for your needs. Considering the substrates you're bonding, the environment the adhesive will need to endure, and other needs of the material, they will determine which core/backing and adhesive types will offer you the desired performance at the point in the economical-to-premium continuum where you want to land.
3. These options will be submitted to you for feedback, consideration, and negotiation. At this point, you've got to weigh the pros and cons of the various paths you could take before you choose one and more specific numbers are nailed down.
4. Talks will go back and forth until both teams feel they've found the ideal solution at a mutually agreeable price point, and an official quote is written up with details of the adhesive product specs, volume, price, and any other terms discussed.

With a transparent discussion around specific needs, goals, and target volumes, the RFQ process can be a breeze. Suppliers are well-equipped to offer a carefully customized list of suggestions from their extensive product lines that will create the ideal balance between simplicity and choice.

## Lighter, Faster, Stronger

Structural adhesives are worth an OEM's investment since they'll do the job cheaper, faster, and lighter than older joining methods like welding. With a thorough RFQ consultation around your goals and options, it's possible to both achieve value and improve quality at the same time.

In fact, Repairer Driven News reported that "using structural adhesives can cut factory spot welding as much as 50 percent, cutting up to 22 pounds of metal from the mass of the vehicle."<sup>7</sup> Those cumbersome mechanical fasteners won't be missed. The article goes on to praise the incredible speed of PSAs with data from Volkswagen that shows they bond aluminum to steel parts "50-100 percent faster" than any other joining method.

Combined with the affordability of adhesives, the overall benefits they bring to lightweighting, line time, and upfront costs are enormous. Follow the guidelines discussed in this eBook to maximize your design specs and achieve incredible value with durable, efficient, inexpensive tapes and films for all of your automotive adhesive needs.





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## About LINTEC Auto

Based on our philosophy of “customer first” and innovative new ideas, we will continue to work on developing high-value-added products we can offer to customers to meet their diverse range of needs.

We offer an extremely diverse range of products that include adhesive papers and films for seals and labels, automobile-use products, window films, semiconductor-related tapes and equipment, LCD-related products, color papers for envelopes and release papers and films.

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Expectations**



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