

UL Certification Made Seamless:

HISCO'S EXPERTISE IN NAVIGATING COMPLIANCE



Hisco



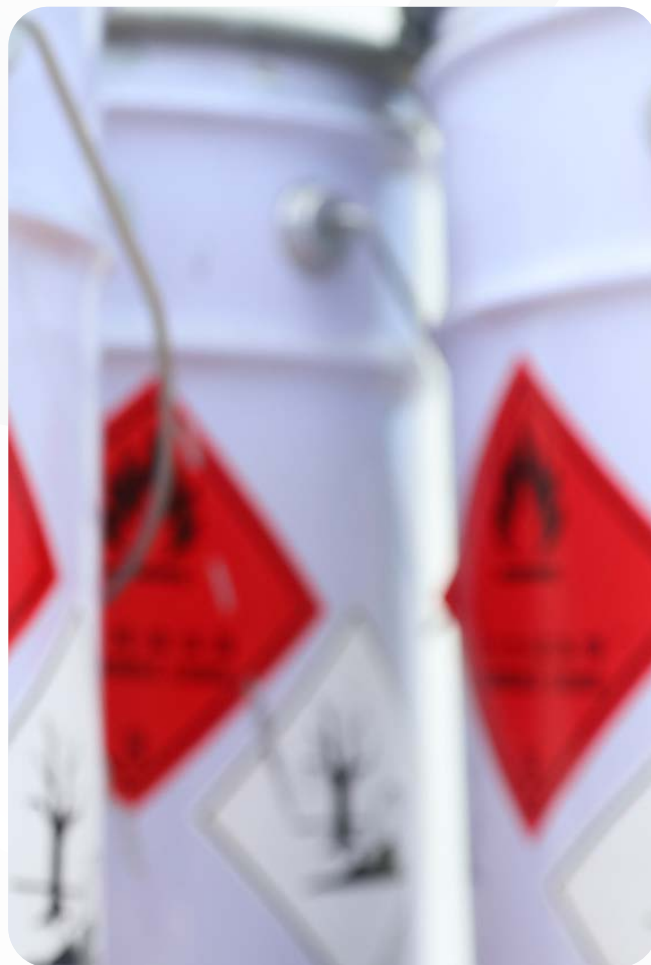
THERE'S NO GETTING AROUND IT: ADHERING TO REGULATORY REQUIREMENTS ADDS EXPENSE AND COMPLEXITY IN PRODUCT DEVELOPMENT.

Meeting these requirements is not getting easier for product designers and engineers that are shepherding new products and components through the workflow, particularly if you're an OEM of HVAC equipment and industrial components.

Pursuing UL certification is an effective way to signify the overall safety and reliability of your industrial component. A successful UL evaluation indicates all components, materials, systems and performance meet overall industry standards.

At Hisco, our value-added services of custom converting and the durable label printing provides us the expertise to help you make your way down your compliance to-do list — and get it done right. Minimize errors while avoiding waste from overdesigning your UL-compliant components.

Our experience with UL-compliant products is unmatched. Talk to us early. We'll ensure your product plan and compliance strategy are on track so you can get your component ready for production.



What is UL?

UL stands for Underwriters Laboratories, and it's an organization that's green-lighted by the U.S. Occupational Safety and Health Administration to perform safety testing. UL gets oversight and accreditation by the American National Standards Institute.

Benefits of UL testing

UL isn't the only entity that conducts industry standardized safety testing. However, the UL mark is one of the most easily recognized and trusted certifications. Its ability to open doors to sales channels and market the reliability and safety of your component is what makes UL certification well worth the investment.

Steer clear of time- and cost-wasting hazards

Like anything that's introduced to the workflow during product development, pursuing UL compliance can extend the development timeline and increase your costs. Aside from associated fees and providing an ample time cushion for the UL evaluation, being strategic is essential to a smooth and orderly UL compliance. Otherwise, even the best-executed projects become derailed with runaway costs and delays.



Common culprits that waste time and money with UL compliance

- Limited understanding and experience with certification requirements
- Sourcing custom components and UL mark printing services from multiple vendors
- Errors in materials selection that render your product ineligible for UL certification
- Choosing materials that require additional testing and review, extending the process

To help you steer clear of these expensive mishaps as you ready your industrial component for market, start by consulting with the team at Hisco. Our expertise, resources and services provide all the essentials to achieve compliance and get your product over the finish line.

UL RECOGNITION VS UL LISTED: WHAT DO YOU NEED?

UL Recognition

Common applications: Components, usually within a larger mechanism. Most often used in factories (power supplies, circuit boards, transistors and other components that power machinery).

Benefits: Conveys safety and efficiency, while being easier to attain than UL Listed with less rigid standards.

Important info: UL may have requirements for protective housing, protecting the UL Recognized components from any exposure to chemicals or liquids in the manufacturing process.

UL Listed

Common applications: Stand-alone products with electric components.

Benefits: Rigorous testing by UL assures consumers of safety and longevity of the product when used as intended, creating a positive reflection on your brand.

Important info: UL Listed conveys product is free of reasonably foreseeable risk of fire, electric shock in Division 2 environment (ignitable concentrations).

3 STEPS TO AVOIDING WASTE AND COST OVERRUNS WITH UL COMPLIANCE

Step 1: Preparation

Planning for UL compliance starts early in the development of your industrial component. Integrate your compliance strategy with the design phase so you plot your course to UL compliance with precision.

Step 2: Budget time and cost

To accommodate the time and expense of UL certification, factor in several weeks and a minimum of \$10,000 to your product development. These will be dependent on the product, types of components needed and the complexities.



Factors to consider for UL Compliance:

- UL-compliant materials are typically more expensive compared to non-compliant materials.
- UL evaluation involves multiple steps, including project quote, the evaluation of product and production, and certification.
- Printing the UL mark on approved material can only be conducted by a UL-authorized durable label printer.

Step 3: Seek guidance early

To avoid unnecessary expense and effort in your pursuit of regulatory compliance, it requires a get-it-right-on-the-first-try approach.

- Formulate your compliance strategy and integrate it with your product design.
- When possible, make components entirely of UL-approved materials — this can shorten your product review at UL.
- Streamline the number of vendors for custom components and durable label printing of your UL mark.

The path to UL certification

Step 1: Client indicates project requires UL certification, providing the application, design and applicable UL standard.

Step 2: Hisco converting services provides input on flexible material components, sources compliant materials for components.

Step 3: Client contacts UL to initiate certification and sends in product sample for testing.

Step 4: UL verifies product meets OSHA and ANSI standards, issues certificate.

Step 5: Hisco durable label printing services manufactures the mark that will be affixed to the product.

WHY HISCO?

OEMs like you rely on Hisco's services to make UL-compliant components as well as compliant, durable labels that bear the UL mark. Our value goes well beyond that. We provide insights, recommendations and resources so you can seamlessly integrate UL compliance into product development.

Consultation

Present your product and anticipated UL standard requirements to your team at Hisco. Our experts in custom converting and durable label printing will recommend resources and next steps so you can seamlessly integrate UL compliance with your final product design.

Reliable sourcing

Hisco is a longtime Preferred Partner of 3M and other top suppliers of high-quality materials. These partnerships come with benefits, which we extend to you, including access to best-in-market pricing and priority shipping. We can work directly with their engineers to source the best adhesive tapes, foams, films and other materials to make your UL-compliant components.

Die-cut components

Once we source your UL-compliant materials, we have the **machining capabilities** to laminate and die cut these into customized components — tailor fit for your application.

Single-source vendor relationship

Hisco provides a multitude of services under one roof, streamlining your costs for design, procurement and manufacturing. We've been very deliberate in building our businesses to make the relationship more valuable to our customers. Read more about our value-added services.

Durable label printing

When UL certification is a requirement, **Hisco printing services is the only printer in the Houston area** that's licensed under the **UL Authorized Label Suppliers Program**.

Hisco provides comprehensive support, resources and services to produce your UL mark.

We source durable materials and inks from our network of trusted suppliers to print, construct and die cut your custom UL mark that meets requirements for long-lasting ruggedness and durability.

Hisco's UL-authorized marking and label categories

- PGDQ2 — Marking and Labeling Systems - Component
- PGGU2 — Marking and Labeling System Materials - Component
- PGIS2 — Marking and Labeling Systems, Limited Use - Component
- PGJI2 — Printing Materials - Component

Types of labels

- Acrylic
- Corrugated packaging
- Die cut
- Direct thermal
- Film
- Flexography printed
- Mylar
- Mylar with Mylar overlamine
- Overlamine
- Paper, polyester
- Polyethylene
- Polyolefin
- Polypropylene
- Polyvinyl chloride
- Pressure sensitive
- Pressure sensitive decal
- Pressure sensitive metal



Quality assurance

UL visits Hisco's printing facility monthly to confirm our continuance in meeting the program's stringent requirements.

- Samples of labels tested for quality and UL-approved inks and materials used
- Confirm proper disposal procedures followed (to prevent unauthorized distribution through the black market)

Label materials and inks

Your UL mark must meet specific requirements to ensure their durability for the life of the product. That's essential for high-performance components that function in challenging environments. Through the life of the component, this safety information needs to be clear and readable for years to come.

Generally, materials and ink used to create UL-approved labels must withstand exposure to moisture, abrasion, chemicals, UV rays and other hazards in the device's environment.

Hisco durable printing services creates labels with UL-approved material/laminate/ink combinations for both the United States and Canada.

CONCLUSION

Navigating the complex landscape of regulatory requirements in product development is an ongoing challenge that demands careful attention. Given the complexities and expenses, it's imperative for product designers and engineers to seek efficient and effective solutions when pursuing UL certification.

At Hisco, our unmatched experience with UL-compliant products positions us as a reliable partner in ensuring your compliance journey is not only well-managed but also geared toward successful and timely completion.

Contact Hisco early in your product development cycle to ensure your compliance strategy aligns seamlessly with your overall product plan. As we guide you through the intricacies of UL certification, we'll help meet and exceed industry standards, so you can bring your industrial component to market with confidence and compliance.

**STREAMLINE UL CERTIFICATION
WITH THE TRUSTED GUIDANCE
OF HISCO**



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