

## Labels for Industrial Applications

Maximum Durability. Engineered for Performance.



# Document. Protect. Insulate. Seal.

## Industrial Label Solutions for Demanding Applications

Industrial products require reliable, durable and standards-compliant identification throughout their entire lifecycle. Whether for machinery, equipment, power tools, batteries, electronic assemblies or countless other industrial products, labels must remain legible and permanently bonded under demanding operating conditions.

In addition to product identification, industrial manufacturers rely on robust labeling solutions for packaging, production control, logistics and process documentation. Depending on the application, labels must withstand challenging environmental conditions, including extreme temperatures, chemicals, abrasion and mechanical stress.

Many of our solutions go far beyond traditional product identification. Besides providing permanent visual marking, they integrate additional functional properties, making them true multi-functional labeling solutions. These functions may include documentation, protection, insulation or sealing.

For industrial labeling applications, four key performance criteria are essential:

- Label Durability
- Resistance to heat, cold, chemicals, abrasion, indoor and outdoor exposure
- Adhesive Performance
- Reliable bonding to rough, textured, oily and low surface energy substrates
- Regulatory Compliance
- UL® and CSA certified labeling solutions, BS 5609 seawater-resistant labels and additional industry approvals
- Documentation & Validation
- Material qualification and sampling according to VDA, AIAG and customer-specific requirements
- High-performance materials, advanced adhesive technologies and state-of-the-art manufacturing equipment form the foundation of reliable industrial labeling solutions.

## Our Technology & Services

Our material portfolio includes more than 500 specialized label materials, enabling us to select the optimum solution for virtually every industrial application. We support our customers with comprehensive material data, technical consulting and sample materials. Initial prototypes can be printed and die-cut under production conditions to validate performance before series production begins.

Many of our materials already carry approvals for industries including UL®, CSA, Automotive and Medical Technology. We maintain more than 20 proprietary UL certifications, allowing us to implement customer projects quickly without lengthy approval processes. When additional certifications are required, we manage the complete testing, approval and documentation process on behalf of our customers.

From a manufacturing perspective, we combine the strengths of conventional and digital printing technologies. Certain industrial applications still require production capabilities that cannot yet be fully achieved using digital technologies alone. By intelligently integrating both manufacturing methods, we deliver maximum flexibility, quality and efficiency.

Our conventional production capabilities include flexographic printing, screen printing, multilayer labels and booklet labels. Digital production is based on HP Indigo ElectroInk technology and UV inkjet printing, enabling high-quality variable data printing and outstanding print performance..

### Our Production Capabilities

#### We operate:

- Conventional rotary die-cutting and laser die-cutting systems for complex functional components
- Modern slitting equipment completing our converting capabilities
- Camera inspection systems and digital optical measuring technology for process control and quality documentation
- Fully automated data processing using Automation Engine workflows for proofing, step-and-repeat and production preparation

### Our Subsidiary – Folit

Folit GmbH is a wholly owned subsidiary of robos-labels and has specialized in high-performance materials from 3M, Flexcon, Tesa and Lintec for more than 30 years.

As one of Europe's leading 3M distributors and converters, Folit develops custom-engineered material combinations for demanding industrial applications. Supported by modern slitting, laminating and converting equipment, Folit expands our capabilities in delivering tailor-made material solutions for highly specialized customer requirements.

## Multifunctional Label Solutions for Demanding Applications

**Technical labels from robos-labels are engineered to meet the most demanding industrial requirements:**

- Temperature resistance from +300 °C to -196 °C
- UV- and weather-resistant materials with an outdoor service life of up to 10 years
- Material constructions ranging from ultra-thin (6 µm) to heavy-duty (500 µm)
- High-performance materials including acrylic films, polyimide films, aluminium foils and polyester films
- Permanent, repositionable and removable adhesives offering excellent adhesion to both high- and low-surface-energy substrates
- A wide range of release liners, including compressed kraft paper in various thicknesses, transparent PET liners, double-sided silicone-coated kraft paper and climate-stable kraft paper
- Suitable for subsequent printing or marking using thermal transfer printing, laser marking and inkjet printing
- Available in roll or sheet format, with options for on-site overprinting



Tamper-evident warning label with custom die-cut shape and QR code



Security seal for documenting opening and tamper evidence



Serialized label with partial die-cut for removable sections

## Variable Data & Serialized Identification

**Serialized and personalized labels** can incorporate sequential numbering, variable codes or individual customer-specific information. Unique product identification with encrypted coding supports automated manufacturing, traceability and logistics throughout the entire product lifecycle.

Printed **Data Matrix Codes** can store extensive product and process information that can be retrieved instantly by scanning 2D or 3D codes and accessing connected databases. Labels can also be overprinted directly at the customer's site with additional variable information whenever required.

# Intelligent Label Solutions for Industrial Applications

## Built to Perform Under Extreme Conditions



Protective label for sealing component openings with pull tab



Weather-resistant nameplate label with QR code applied to electric shears

### Functional Adhesive Solutions

- Adhesive bonding frames
- Functional labels with kiss-cut and through-cut features in plastic films
- Precision die-cut functional components for sealing, insulation, cushioning, protection and bonding
- Pressure equalization labels for venting applications and overpressure protection



Label with UL approval for components for the North American market

### Security & Protective Labels

- Hologram labels for brand protection and premium product decoration
- Tamper-evident labels with transfer-proof security features
- Security seals for documenting opening and tampering
- First-opening indicators and tamper-evident labels

### Labels for Extreme Temperature Applications

- Low-temperature labels for machinery, industrial equipment and automotive applications
- Printed circuit board (PCB) labels
- High-temperature labels for machinery, industrial equipment and automotive applications

### Standards-Compliant Identification

- UL® and CSA certified labels
- BS 5609 seawater-resistant labels for hazardous substance identification
- Labels compliant with FMVSS 302 flammability requirements (Federal Motor Vehicle Safety Standards)

### Reflective Identification Solutions

- Retroreflective labels for warehouse and storage location identification
- Retroreflective targets and labels for optical distance measurement

### Labels for Control Panels & User Interfaces

- Graphic overlays and membrane switch overlays for buttons, displays and indicator lights
- Front panels and decorative overlays for permanent product identification

### Product Decoration

- Domed resin labels for premium product branding and decoration

### Labels for Variable Overprinting

- Pre-printed labels for subsequent printing of variable data
- Blank labels for on-demand variable data printing

### Cable & Pipe Identification

- Wrap-around and flag labels for cable and wire identification
- Pipe marking labels designed for reliable adhesion on curved surfaces
- Cable wrap labels for secure long-term adhesion on cables and wires

## Variable Data Identification

- Serialized and personalized labels with variable data
- Barcode and Data Matrix labels for automated identification and traceability

## Protective Films

- Paint masking labels providing temporary protection during painting processes
- Labels for sealing component openings
- Surface protection films against scratches and abrasion during manufacturing and transport

## Product Identification

- Wrap-around laminate labels for handwritten or thermal transfer overprinting
- Documentation labels for process and product information
- Labels for small load carriers (KLT)
- Durable rating plates and nameplate labels for permanent identification



Functional label with kiss-cut and through-cut features



Blank label applied to a cast component for on-site variable printing



QR code label with hologram for tamper protection

## Labels for Challenging Surfaces & Environments

- High-performance labels for demanding industrial applications
- Labels designed for oily, dirty and dusty surfaces
- Chemical- and solvent-resistant labels for harsh environments
- Weather-resistant outdoor labels with maximum durability
- Labels for rough and textured surfaces
- Labels for low surface energy (LSE) substrates
- Automotive labels for engine compartment and other demanding vehicle applications

## Warning & Safety Labels

- Hang tags for warning and consumer information
- Warning labels for industrial and medical applications
- Tactile labels with raised symbols, Braille and tactile warning elements
- Battery and coolant identification labels
- Automotive labels for vehicle interiors, exterior applications and engine compartments

## Technical Labels with UL® Certification for the North American Market



- Since 1993, robos-labels has been an approved manufacturer of UL-certified labels and is authorized to print all applicable UL certification marks in accordance with the UL Authorized Label Supplier Program (PGAA).
- UL Solutions is a globally recognized certification organization whose testing and approval processes are focused on product safety, quality and regulatory compliance.

# Certified Label Solutions

As a manufacturer, robos-labels offers an extensive portfolio of pre-approved and certified labeling solutions for demanding industrial applications. If additional customer-specific certifications are required, we are happy to manage the complete testing, approval and certification process on your behalf.

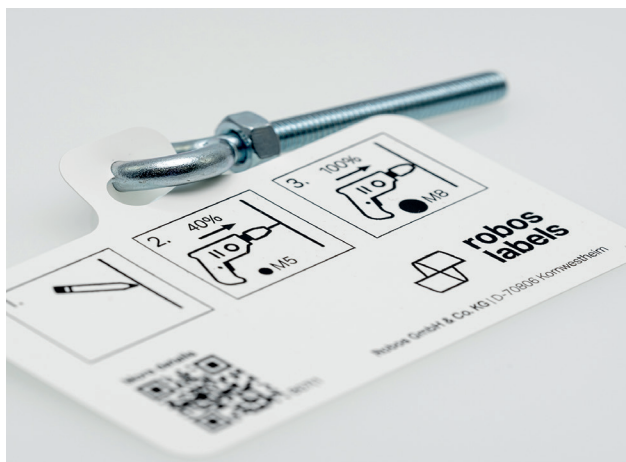
In addition, we support PPF (Production Process and Product Approval) sampling in accordance with the requirements of the German Association of the Automotive Industry (VDA), as well as the North American equivalent, PPAP (Production Part Approval Process) according to AIAG (Automotive Industry Action Group) guidelines.



Serialized nameplate label applied to a rough, oily cast component



BS 5609 Section II & Section III seawater-resistant label



Hang tag for warning and consumer information

## Our materials already comply with a wide range of international standards, regulations and OEM specifications, including:

- UL 969A:2020 – Standard for Marking and Labeling Systems – Flag Labels, Flag Tags, Wrap-Around Labels and Related Products
- UL 817 – Cord Sets and Power Supply Cords
- UL 2238 – Cable Assemblies and Fittings for Industrial Control and Signal Distribution
- UL 94 – Flammability of Plastic Materials (including UL VTM-0, the highest classification for thin materials)
- FMVSS 302 – Flammability of Interior Materials (Federal Motor Vehicle Safety Standard)
- Ford WSS-M99P41-A72
- MS-13445 (FCA – Fiat Chrysler Automobiles)
- TL 52038 (Volkswagen)
- GMW14573 (General Motors)
- TM-0030T-Y (Tesla)
- GS 97058 (BMW)
- MS 373-12 (Hyundai)
- DBL 8230 (Mercedes-Benz)
- TSM7508G (Toyota)
- Compliance with REACH, RoHS and IMDS
- ADR 2021 – European Agreement concerning the International Carriage of Dangerous Goods by Road, Rail and Inland Waterways
- CLP Regulation (EC No. 1272/2008) – Classification, Labelling and Packaging of Substances and Mixtures
- BS 5609 – Seawater-resistant labels for marine environments and hazardous chemical labeling
- DIN EN ISO 11683:1997-11 – Packaging – Tactile Warnings of Danger
- FDA 175.105 – Indirect Food Additives: Adhesives and Components of Coatings



Managing Directors Daniel Sugg and Simon Reuter



Our Headquarters in Kornwestheim - Administration and Manufacturing

## You're in Good Hands with robos-labels

With more than 75 employees, robos-labels is one of Germany's leading specialists for high-performance industrial labeling solutions. Our headquarters are located near Stuttgart, where administration and manufacturing have been combined in a modern production facility since 2018.

Founded in 1960, robos-labels today operates more than 20 state-of-the-art printing and converting systems. Alongside conventional screen and flexographic printing, we utilize

advanced digital printing technologies complemented by fully automated camera inspection systems, booklet production and laser die-cutting technology.

Over the past decades, robos-labels has specialized in manufacturing high-performance labeling solutions for the industrial, chemical, automotive and medical technology sectors. Today, customers in more than 30 countries rely on our products and expertise.



### Your Benefits at a Glance

#### Specialized in UL® Certified Labels for the North American Market

- Approved manufacturer of UL-certified labels since 1993, authorized to print all applicable UL certification marks under the UL Authorized Label Supplier Program (PGAA)
- UL Solutions is a globally recognized certification organization dedicated to product safety, quality and regulatory compliance
- Our labels comply with UL 969 – Standard for Marking and Labeling Systems as well as CSA C22.2 requirements
- UL-certified labels are available with variable data printing and a wide range of print colors
- More than 20 proprietary UL certifications for indoor and outdoor applications help eliminate lengthy and costly approval procedures

#### Your Experienced Partner for Customized Industrial Labeling Solutions

- 3M Certified Converter
- Registered in the International Material Data System (IMDS)
- Electronic Data Interchange (EDI) connectivity
- Certified according to ISO 9001:2015 (since 1996) and ISO 14001:2015 (since 2009)
- Approved supplier to numerous leading industrial manufacturers
- Tailor-made labeling solutions engineered for your application
- Available in roll or sheet format, with optional application aids such as pull tabs or back-side slitting for easy dispensing

**Sample Service:** Our sample service is pleased to provide complimentary label and material samples for evaluation.  
E-Mail: [request@robos-labels.com](mailto:request@robos-labels.com)



Zertifizierter Verarbeiter  
Kennzeichnungsprodukte

