

... really unique

topex[®]



The Whole World of Marking

The task decides on the material

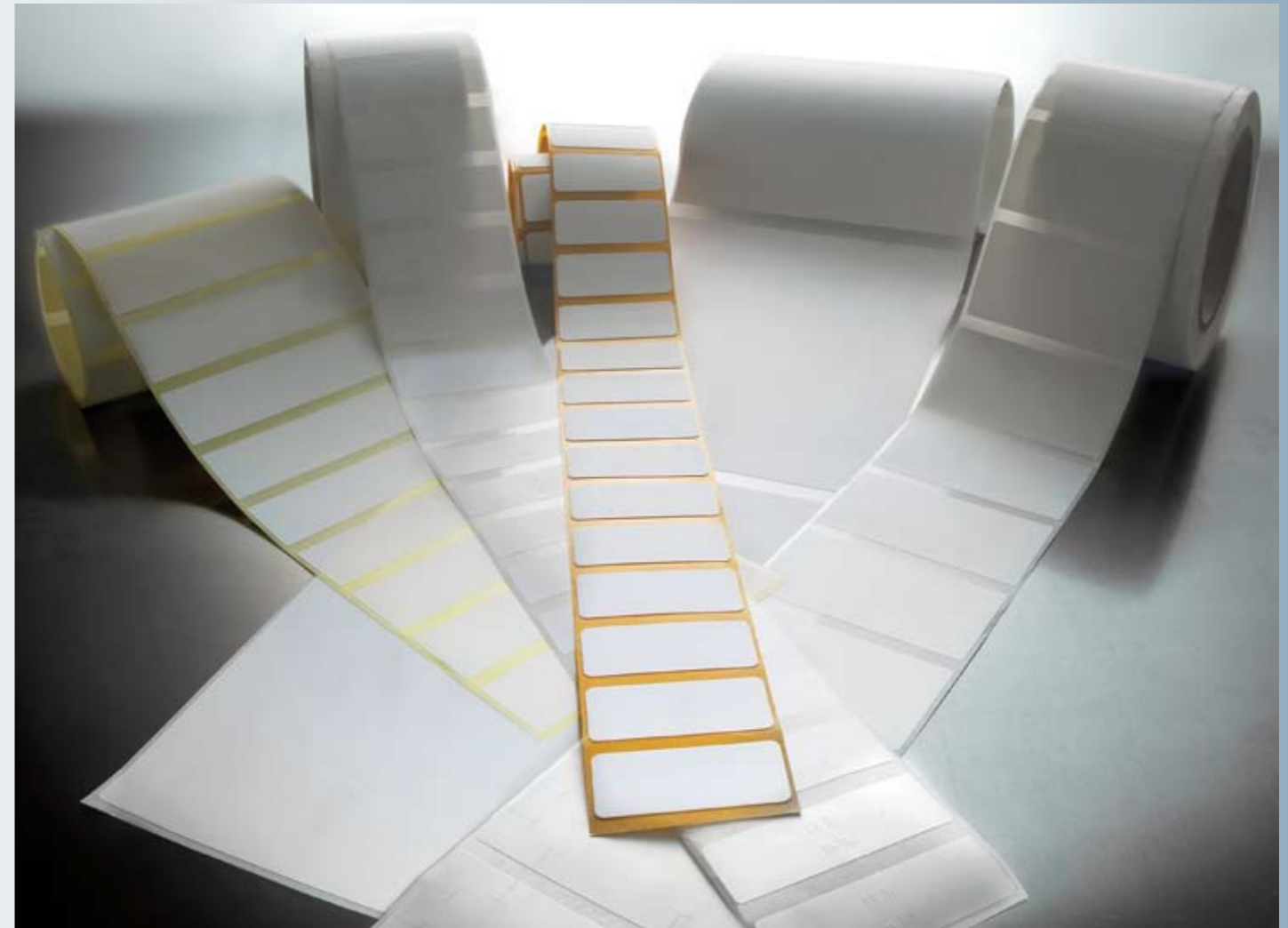
Selection of a suitable material is decisive for ensuring optimal functionality, i.e. the best possible adhesion and readability of the labels. In the process, all conditions of use, influencing factors and the requirements for the specific application must be taken into account. We support you – with sound advice and custom-tailored solutions.

Unmatched expertise

Our many years of experience, our know-how and the creativity typical for topex always enable us to provide the ideal labels for your individual requirements. Custom-tailored with the right upper material and the best adhesive for the purpose. Suitable for an extremely broad range of tasks in virtually all sectors of technical industry.

Unmatched product range

Whether as a data carrier in the classic sense or as a functional label – our broad product portfolio offers the right solution for any application. From high-quality labels made of standard or special materials to suitable transfer foils for durable, abrasion-resistant printing.



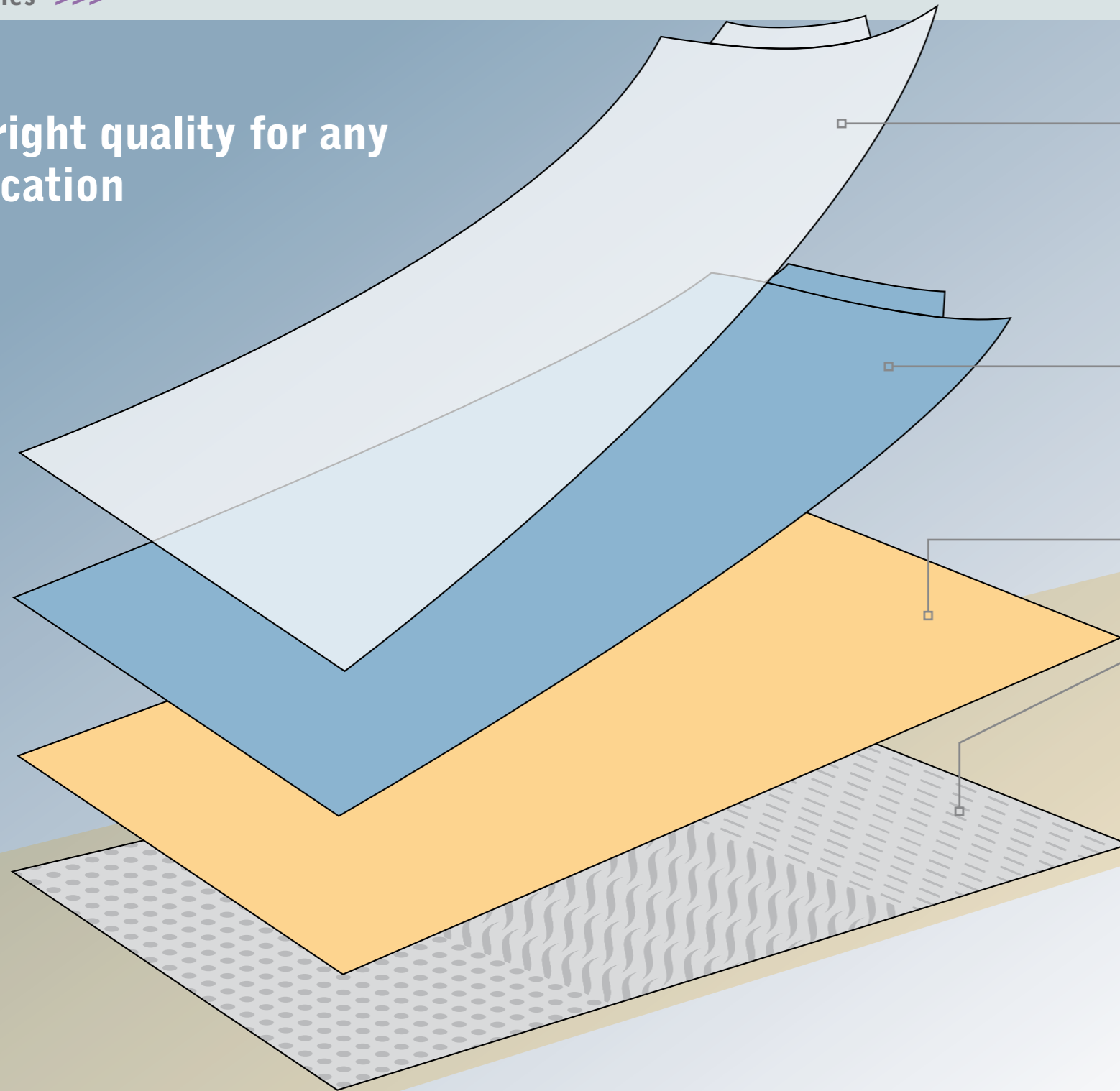
Functional labels



Type plate

- | | | |
|--|--|--|
| <p>1 Paper
standard, chromo,
thermal</p> | <p>2 PE
glossy, matte,
transparent</p> | <p>3 PP
glossy, matte,
transparent</p> |
| <p>4 PVC
glossy, matte,
transparent</p> | <p>5 PET
glossy, matte,
transparent</p> | <p>6 Polyimide
glossy, matte</p> |
| <p>7 Laser material
burn-off / colour
change foil</p> | <p>8 Special materials
on request</p> | <p>9 Thermal transfer foils
wax / wax-resin /
resin</p> |

The right quality for any application



	Label	Laser material
1.	Transparent laminated coating	Transparent laminated layer
2.	–	Laser-active layer
3.	Upper label material	Farbferenzschicht
4.	Adhesive layer	Klebstoffschicht
5.	Carrier material / kraft paper / glassine paper / foil	Carrier material / glassine paper

Extremely broad range of materials
 topex provides you with labels in all common standard materials: from paper and PE to PP, PVC, PET to polyimide. In addition, various laser foils and a broad range of functional labels in the corresponding special materials.

Resistance as requested
 The required resistance of the label is dependent on the production process, the purpose and the desired marking duration. For example, paper labels are the most economical solution for many simple, short-term marking applications. For more demanding applications, we offer labels permanently resistant to cold, heat, scratching, moisture, chemicals and UV.

When selecting the optimum label quality for the respective application, not only the required temperature and resistance to chemicals or moisture are important, but also the label's function. For the label material and the special coating structure are dependent on these factors. Our complete product range always offers the label suitable for your requirements – including from a financial standpoint.

Quality	Temperaturber.	Beständigkeit	Anwendungsbereich	Sonstige Eigenschaften
Paper	0 – +80° C	conditional	pallet marking	low-cost variant
Standard			simple / standard marking	satisfactory printing quality
Chromo				good colour coverage and printing appearance
Thermal			short-term marking	
PE	-20 – +80° C	high, against moisture chemicals cleaning agents	entire industry	excellent resistance outstanding colour coverage, excellent printing appearance
PP	-20 – +80° C	high, against moisture chemicals cleaning agents	entire industry	high transparency, suitable for "no-label look" better stiffness than PE
PVC	-20 – +90° C	high, against moisture chemicals cleaning agents weathering	entire industry	suitable for outdoor applications shelf life of up to 7 years UV-resistant
PET	-40 – +150° C	very high, against moisture chemicals cleaning agents temperature	entire industry type plates	very high mech. strength and hardness for demanding, permanent marking high resistance to tearing
Polyimide	+300° C	very high	high-temperature applications, e.g. PCB production	good dimensional stability
Laser foils Burn-off Colour change	+260° C +150° C	very high, against moisture chemicals cleaning agents temperature	entire industry type plates	and very high resistance for demanding, permanent marking emission-free marking (colour change)
Special materials/ Functional labels Protective laminates Blanks Sandwich labels Functional parts		application painting or surface protection	various	process support and optimisation

Exact matching for outstanding quality

The interplay of the label material, thermal transfer ribbon and printer is decisive for the printing quality of thermal transfer printing. These three components must be optimally matched to each other to obtain high-quality printing results. We have the necessary system know-how – and of course the right labels.

The process

The most important element of the thermal transfer printer is the thermal printing head, which contains a large number of individual heating points, so-called "dots", in a row. The thermal transfer ribbon serves as the ink carrier. In contrast to the carbon ribbon

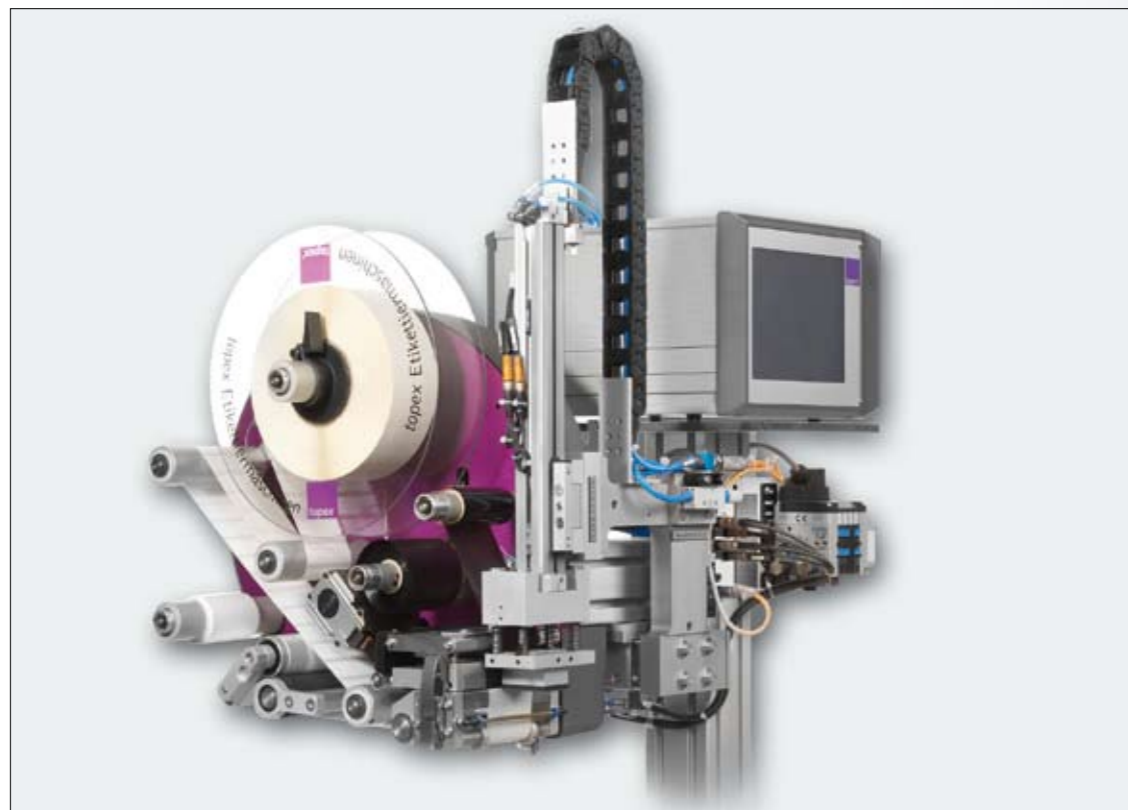
of a typewriter, the ink is transferred thermally instead of mechanically. When the individual dots are heated, the ink on the thermal transfer ribbon is melted and adheres to the label. In the process, the labels run through under the fixed thermal printing head in synchronisation with the thermal transfer ribbon.

The advantages

- High printing speed
- Good to very good printing quality with a resolution of 8 to 24 dots/mm (200 to 600 dpi)
- Use of the most common graphic formats (printer and software-dependent)
- Resistant to mechanical and chemical loading (when suitable labels and thermal transfer ribbons are used)



topex 7000 Thermal Transfer Labelling Machine – the universal labeller



The ink ribbons

With thermal transfer ribbons, a basic distinction is made between three qualities:

1. Wax quality

- Conditionally scratch and smudge-proof
- Use with paper labels



Paper labels for short-term marking of parts during production



2. Wax / resin quality

- Medium scratch and smudge resistance
- Suitable for a large number of applications
- Good printing quality on most materials
- Use with paper and plastic labels



PE label for permanent marking in a protected environment



3. Resin quality

- High scratch and smudge resistance
- For demanding labels and requirements
- Mainly suitable for plastic labels



Highly resistant composite of PET label and foil for permanent parts marking



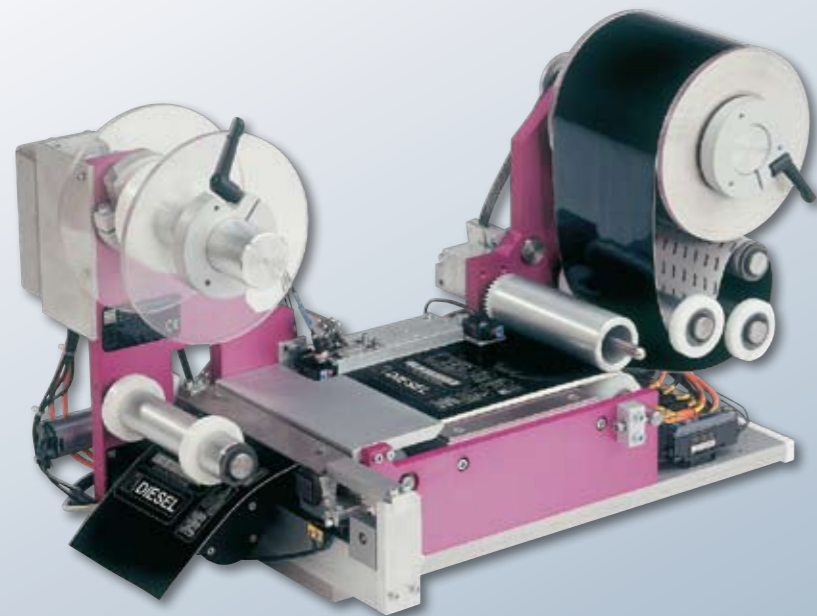
With high-tech for perfect results

Marking with laser labels stands for extremely durable product marking and traceability. Here our particular strength lies in the development and realisation of requirement and / or customer-specific concepts and custom-tailored problem solutions. Specially developed and manufactured multi-layer foils are used for label production on laser marking systems.

Two foil types to choose from

Burn-off foil: Here the top layer is removed with the laser beam, revealing the layer located below.

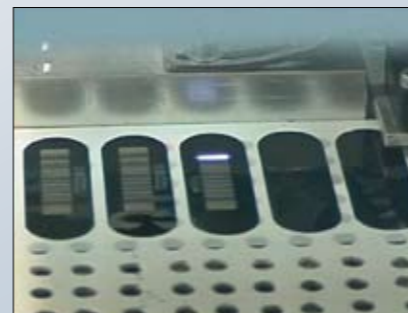
Colour change foil: Marking is carried out inside the composite material under a transparent protective laminate. With painting applications, an additional painting protection laminate which can be removed residue-free can be applied as the top layer.



LM 5000 Laser Labelling Machine



A broad range of qualities and versions for a wide variety of applications



Marking of pre-punched laser labels



Marking and cutting of continuous laser material

Individual or continuous: you decide

All foil types are available in two variants: either as a continuous roll for marking and flexible production of individual labels. Or as pre-punched labels for manual or automatic application on the workpieces.

Convincing product advantages

- High thermal stability
- High resistance to weathering/UV
- High resistance to chemicals/solvents
- High resistance to mechanical loading
- High resistance to abrasion
- High assurance of readability due to high-resolution, high-contrast marking
- Official approvals (e.g. UL, CSA)
- Forgery-proof marking

Flexibility that pays off

- Manual or automatic further processing
- Marking and cutting of the label format in a single work step
- Unlimited marking possibilities
- Integration of variable data

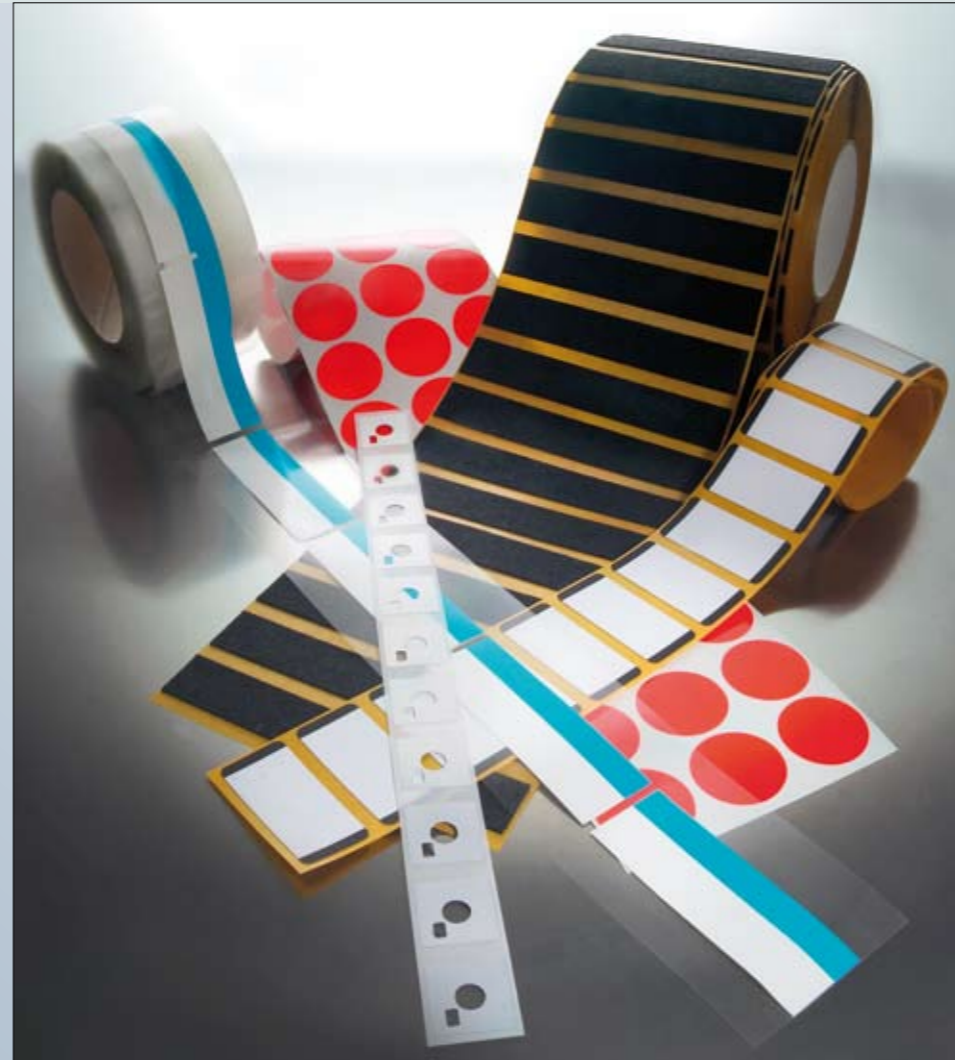
Labels that can do more

Special labels are the right solution for use in an extreme working environment and for extraordinary requirements with regard to shape and functionality. Functional labels assume the properties of conventional components and are used to support and optimise a wide variety of production processes.

Special labels – topex makes anything possible

The right choice and combination of materials makes label use possible even under extreme conditions and on difficult parts surfaces. We will develop the optimal solution for permanent marking – exactly in accordance with your specifications.

- With safety features like punching etc.
- Water-soluble labels
- Labels resistant to high temperatures
- Special solutions for difficult surfaces
- Combination labels
- Variants with adhesive-free zones, grasping strips, perforations, etc.

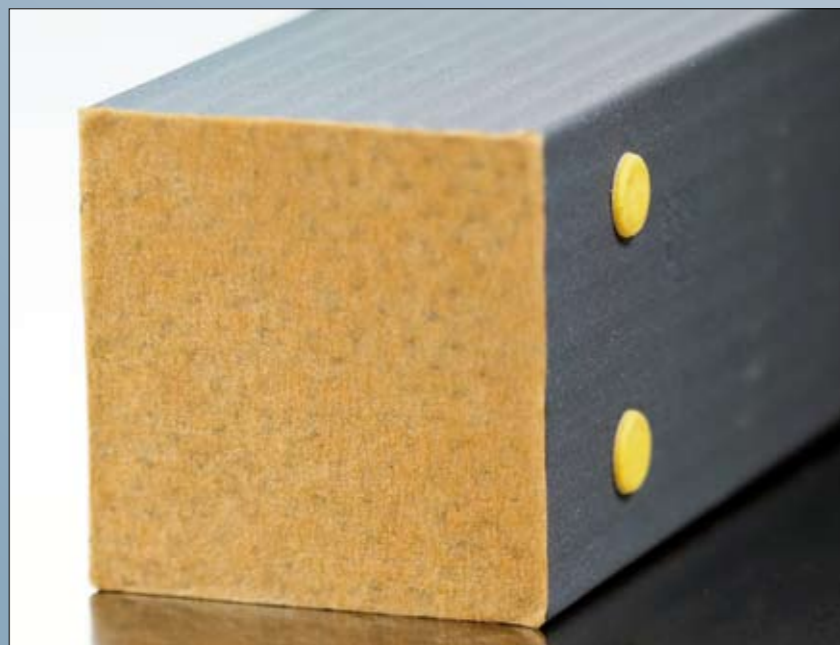


Functional labels – use the possibilities

Functional labels provide for greater efficiency and economy in a large number of production and further processing processes. We can develop custom-tailored labels with special materials or material combinations for your individual applications.

- Painting protection labels (single or multi-layer)
- Functional punched parts (e.g. spacers made of special materials)
- Sealing and insulating materials (e.g. rattle protection tapes)
- Insulating materials and heat-conducting foils
- Covering and sealing materials

Combination of sealing label and self-adhesive spacer



Pressure compensation membrane



Painting protection label with grasping tab



We'll mark for you – exactly in accordance with your requirements

You want to mark your parts and have smaller quantities? Or your quantities suddenly become too large and you may not be able to make your delivery deadlines due to a low marking capacity? None of that is a problem for us. For topex assumes the professional marking of your labels, type plates or workpieces with wage processing – precisely according to your specifications, on time and economically. Even with extremely small quantities.



Of course, our offer covers not only laser marking, but also the production of labels with the thermal transfer printing process – with and without laminate. The suitable label materials

are specified by our material specialists for the specific application. In the process we exclusively utilise high-quality, proven materials from well-known manufacturers.



Laser-marked type plates



Type plates printed with the thermal transfer process

Brushed aluminium surface marked directly with the laser



Stainless-steel parts marked directly by laser



Anodised aluminium plates subsequently marked with a laser



Directly labelled plastic parts



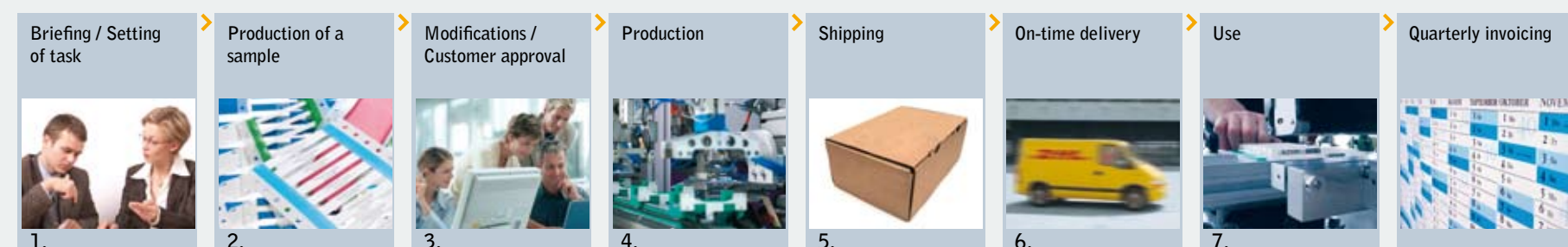
Efficient procedures for outstanding results

Wage processing must pay off – especially for you as the customer. To enable you to achieve the desired results as quickly and economically as possible, we always use the same pattern for wage marking proven over many years. As a result, you gain time, reduce costs and receive the quality and security exactly matched to your requirements. And we also benefit here, for that's how we gain satisfied customers.

Seven steps to success:

- 1. Setting of task by the customer
 - 2. Production of a sample in accordance with the specifications
 - 3. Customer approval or modification by topex
 - 4. Professional production/marketing at our plant
 - 5. Careful packing
 - 6. Immediate shipping, on-time delivery
 - 7. Use at customer's company
- Invoicing takes place quarterly. That helps us reduce administrative expenses and effort and you benefit from that as well.

Workflow



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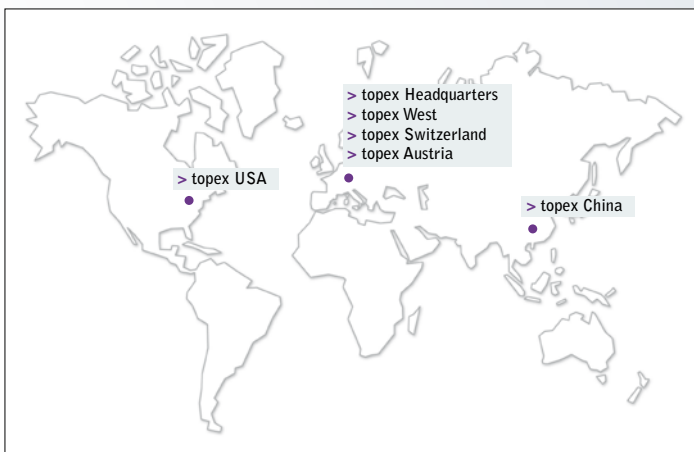
- Labelling systems
- Laser marking
- Special machines
- Peripheral equipment
- PCB marking
- Software
- Control systems
- Labels and transfer foils
- Wage marking

www.topex.de

topex GmbH

Daimlerstraße 2
73268 Erkenbrechtsweiler,
Germany

Phone +49 (0)7026 / 9316-0
Fax +49 (0)7026 / 9316-91
E-mail: zentrale@topex.de



Verband für Automatische
Datenerfassung, Identifikation und Mobilität

