

## tesa® Laser-Label

- flexible and economic identification
- variable label formats



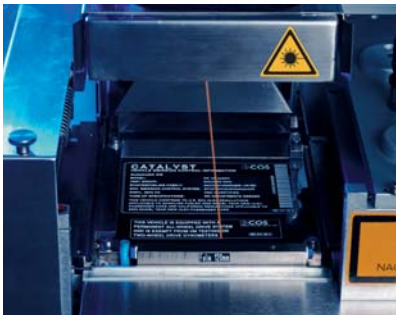
## Laser labels: flexible and economic.

Whether for type plates, steering or warning and instruction labels, the self-adhesive tesa® laser foils provide you with maximum design freedom and flexibility.

Marking and cutting are achieved by laser in one step, which makes it possible to realise any desirable label variation and format using only one material. This simplifies planning, purchasing, logistics and storage as the labels can be cut and marked just in time and on location. This means that overproduction and wasted material become a thing of the past. Even very small lots can be created quickly and at a low cost.

### Excellent marking precision

The laser is a modern, industrial marking tool. Flexible laser beam guiding and the high process security allow for exception-



### Creation by laser:

Marking and cutting by laser in one step on location.

nally precise marking. Therefore, it is possible to create the finest lines, micro-script, bar and mini barcodes, and detailed graphics. There are practically no limits to what can be achieved.

### Highly adhesive and durable

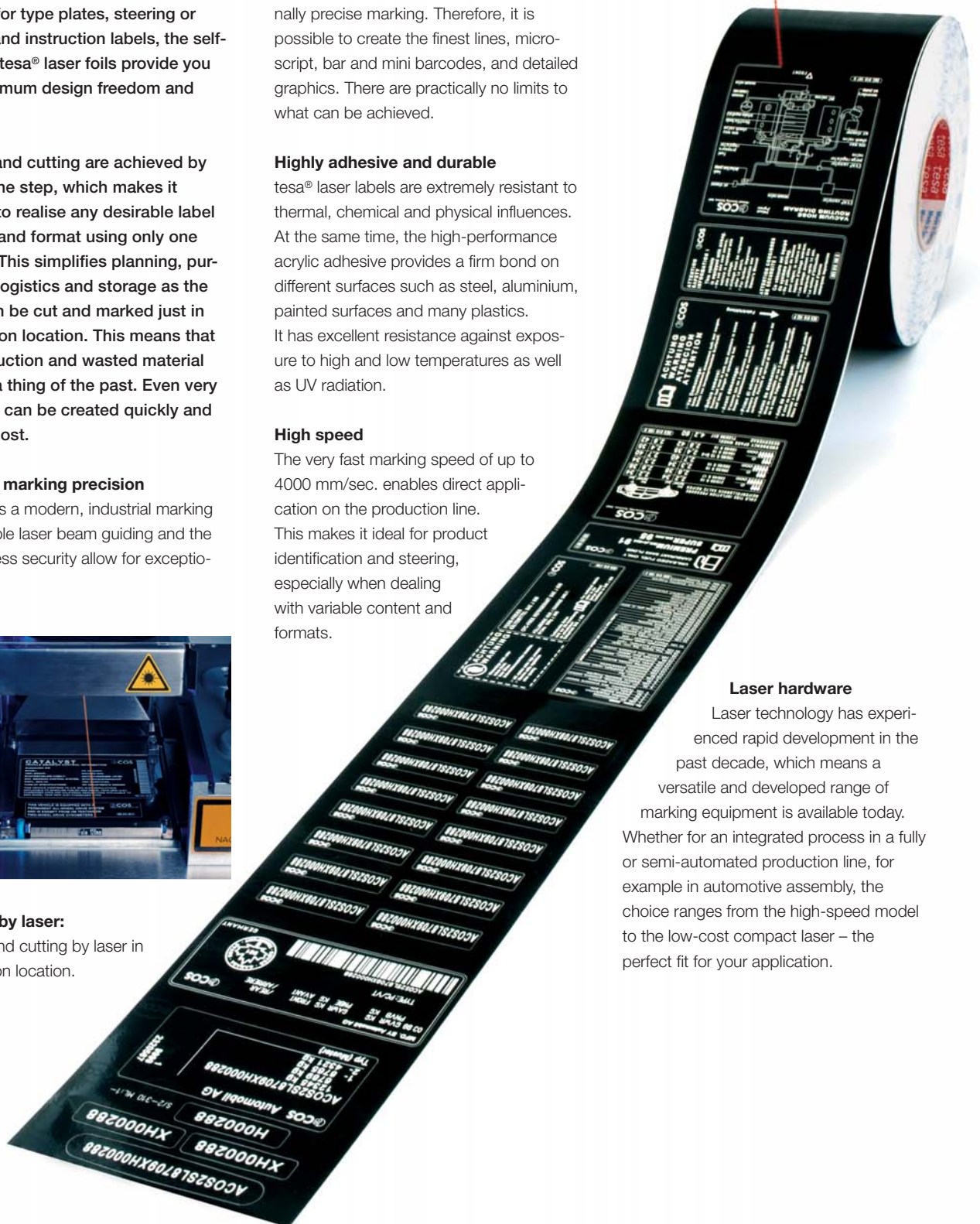
tesa® laser labels are extremely resistant to thermal, chemical and physical influences. At the same time, the high-performance acrylic adhesive provides a firm bond on different surfaces such as steel, aluminium, painted surfaces and many plastics. It has excellent resistance against exposure to high and low temperatures as well as UV radiation.

### High speed

The very fast marking speed of up to 4000 mm/sec. enables direct application on the production line. This makes it ideal for product identification and steering, especially when dealing with variable content and formats.

### Laser hardware

Laser technology has experienced rapid development in the past decade, which means a versatile and developed range of marking equipment is available today. Whether for an integrated process in a fully or semi-automated production line, for example in automotive assembly, the choice ranges from the high-speed model to the low-cost compact laser – the perfect fit for your application.



## Advantages at a glance



### Flexible and Economic:

- Flexible formatting: the label is cut by the laser
- Efficient: replaces the multitude of pre-made labels:
  - Just In Time production (reduction of storage space needs)
  - No minimum amount of labels per label type
  - No residual material
  - Reduced purchase, logistics and administration costs
- Quick application through adhesion



### Precision:

- Excellent marking precision
- High contrast and high readability
- Quick marking: through engraving and colour changing of laser activated pigments



### Tamper Evident:

- Manipulation leaves visible traces
- Not removable without destruction of the label (except 6910)



### Resistance:

- Very resistant to heat, abrasion and chemicals
- Secure bonding to a variety of surfaces








## Laser-engravable foils – double layered



- Double-layered acrylic foil: marking through evaporation of the top layer
- Excellent readability due to high resolution and contrast
- Manipulation leaves visible traces
- Not removable without destruction of the label (brittle)

### Technical Data

		Roll format	Total thickness (without liner)	Adhesive (modified acrylic)	Backing	Liner	Compatible laser
<b>Standard laser foils</b>							
<b>6930 PV3</b> UL listed	 black / white matt/ glossy	100 mm x 300 m or 120 mm x 300 m	100 µm	25 g/m <sup>2</sup>	Double-layered acrylic foil	PE-coated paper Removal force 2-10 N/cm	Nd:YAG CO2
	 silver / black matt/ glossy		118 µm				
	 white / black glossy		118 µm				
<b>Special variant: In certain cases beneficial in handling</b>							
<b>6930 PV6</b>	 black / white glossy	100 mm x 200 m or 120 mm x 200 m	145 µm	35 g/m <sup>2</sup>			
<b>tesa® Rapid: especially quick marking of up to 4000 mm / sec.</b>							
<b>6940 PV6</b>	 black / white glossy	100 mm x 200 m or 120 mm x 200 m	140 µm	35 g/m <sup>2</sup>			



Type label. Lasts the entire product life cycle.



Tamper evident variant with watermark.



Process integration. The high marking speed allows for integration for automatic in-line production.



## Colour activated pigment foils – single layered

- Single-layered acrylic polyolefin foil: Marking through colour activated pigments
- Laser-sensitive colour changing pigments embedded in the material
- Emission-free marking
- Manipulation leaves visible traces

### Technical Data

		Roll format	Total thickness (without liner)	Adhesive (modified acrylic)	Backing	Liner	Compatible laser		
<b>Standard laser foil (not brittle)</b>									
<b>6910 PV0</b>	white	100 mm x 300 m or 120 mm x 300 m	100 µm	25 g/m <sup>2</sup>	Polyolefin	PE-coated paper Removal force 2-10 N/cm	Nd:YAG		
<b>Laser foil with security feature (brittle)</b>									
<b>6931 PV0</b>	transparent, white, yellow	100 mm x 300 m or 120 mm x 300 m	100 µm	25 g/m <sup>2</sup>	Acrylic foil				
<b>Process steering label with transparent protective lacquer laminates</b>									
<b>6931 PV2</b>	white, yellow	individual	100 µm (without protective layer)	25 g/m <sup>2</sup>	Acrylic foil				

#### Label solution with protective lacquer laminates:

tesa® 6931 PV2 has removable transparent protective layers that protect the marked label from every stage in the painting process. This material is used as an identification label over the entire life span of a product and also as a data carrier for intelligent process steering.



Application example from Japan.  
Tracking the freshness of sushi plates.



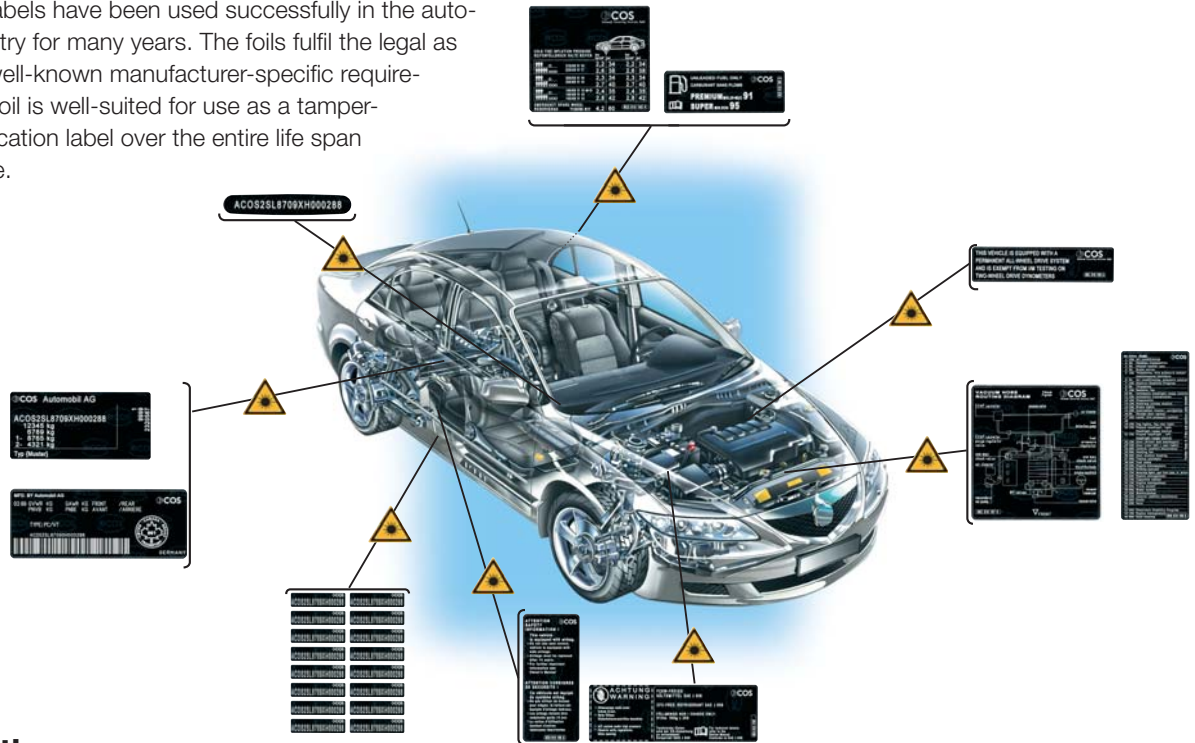
Quickly markable, even directly on the production line.



High contrast even with fine markings.

## Front runner automotive industry:

tesa® laser labels have been used successfully in the automotive industry for many years. The foils fulfil the legal as well as the well-known manufacturer-specific requirements. The foil is well-suited for use as a tamper-proof identification label over the entire life span of the vehicle.



## Certification:

**DIN EN ISO 14001**, Environmental Management System  
**ISO/TS 16949:2002**, Quality Management System  
 (includes DIN EN ISO 9001, VDA 6.1 and QS 9000).

**OHSAS 18001**, Health and Safety Management System

tesa® self-adhesive products are used successfully in many sectors to solve a variety of problems. Our publications contain numerous examples of such uses, intended to help towards a solution to your particular problems. Each tesa product has been developed for a particular range of applications. Nevertheless, experience has shown that even for one and the same objective, the exact requirements may differ from case to case. We, therefore, recommend that you carry out your own tests in each case, to confirm that the tesa self-adhesive products which you intend using are appropriate for your particular application. The advisory section of our Technical Service Department will be happy to assist. All information and recommendations are given by us in good faith on the basis of practical experience, but without warranty.

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