

# LP130e Laser Marking System



LP130e is delivering all the advantages of highly-durable laser label marking but at a much lower cost and with far greater simplicity than ever before without special operator training.

# Customized Laser Marking

... right on your workbench



Despite its many advantages, laser marking of durable label film has always been a complicated and expensive process. It required highly-trained operators, a large capital equipment investment, lots of maintenance, and a secured work area for safe operation.

Primera's new LP130e Laser Marking System changes all of that. It's built to be used right on your desktop or workbench, making the laser marking process easy and convenient. It's used just like any other Windows®-based printer.

The main difference is that LP130e contains a high-powered, solid state laser. The laser either ablates or phase-changes a wide range of specialty label substrates, delivering all the advantages of highly-durable laser label marking but at a much lower cost and with far greater simplicity than ever before.

Labels produced on LP130e are designed to be replacements for etched metal plates as well as thermal-transfer laminated polyester bar code labels. Both "smoke" and "smokeless" types of substrates are available.



# Labels Produced with LP130e Withstand



**Extreme temperatures  
from cryogenic cold  
to glowing heat**

**Extreme sunlight/  
UV exposure**

**Harsh outdoor  
weather  
conditions**

**Chemicals**

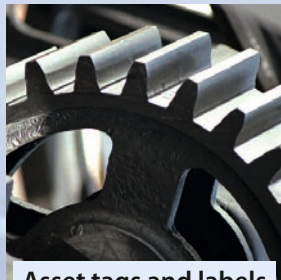
Labels produced with the LP130e Laser Marking System withstand harsh outdoor weather conditions for many years, extreme sunlight/UV exposure, extreme temperatures from cryogenic cold to glowing

heat, high abrasion – including blowing sand and dirt, tampering due to available tamper-evident features, chemicals (such as grease, oils, gasoline and many other chemicals).

# System Key Applications



IUID Labels



Asset tags and labels



Automobile labels



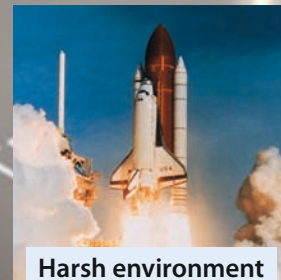
Medical  
laboratory labels



Solar panel labels



Security labels



Harsh environment  
labels

- » **IUID Labels** – for U.S. Department of Defense's MIL-STD-130N labelling requirements
- » **UDI ("Unique Device Identification") Labels** – for asset tracking for medical devices according to FDA specifications
- » **Asset tags and labels** – to protect and identify valuable equipment and devices
- » **Automobile labels** – for VIN and rating plates and under-hood use
- » **Medical laboratory labels** – with both low- and high-temperature and chemical resistance, labels can be used virtually anywhere from the freezer to the autoclave
- » **Solar panel labels** – able to withstand outdoor stresses from wind, rain and UV light
- » **Security labels** – prevents the label from being removed and if attempted shows tamper-evidence
- » **Harsh environment labels** – any other labels such as safety warning labels that are used in rough outdoor weather conditions.



# Optional Smoke and Fume Filter

DF-30e Filtration System for “smoke” substrates



## DF-30e FILTRATION SYSTEM

Label substrates that generate smoke and fumes require the use of Primera's DF-30e Filtration System. DF-30e is mounted directly underneath the system and attaches without tools. It has five filtering stages: a baffle filter, a pre-bag filter, MERV-13 large particle filter, a HEPA small particle filter and an industrial-grade carbon filter for odour removal. DF-30e lets you safely use the LP130e Laser Marking System in most office, warehouse and factory environments.

# Durable Smokeless Labels Phase change

... from **schreiner**  
ProTech

## Product Description

This Colour Laser Film consists of a high-grade polyester film composite, which can be marked by a laser beam in a zero-emission process. Located underneath a transparent laminate film is the laser-active layer, which is activated during the laser-marking process, thus exposing the white colour reference layer.

During the marking process there is no ablation of film particles (zero emissions). The film surface remains undamaged (no gravures) and, as a result, is extremely resistant to environmental influences. The Colour Laser Film is equipped with an acrylic adhesive, which has an extremely high tack force. Due to its modified formula, this adhesive has been proven to deliver outstanding adhesion on different material substrates.

## Product Properties

Modified acrylic adhesive with excellent weather, solvent and plasticizer resistance. A significantly thicker adhesive coating than with standard versions achieves outstanding adhesion even to rough and structured surfaces.

Temperature resistance -40°C to +120°C  
(permanent service temperature)

## Product Features

- Dimensionally stable and tear-resistant laser film for heavy-duty film labels used in rough industrial environments
- Suitable for marking with commercial standard Nd:YAG, Vandal- and fibre laser systems
- Excellent black-white contrast
- Excellent resistance to chemicals, temperature changes, mechanical abrasion, etc.
- Zero-emission laser marking process
- The film is free from halogens and silicone and is resistant to plasticizers; the film meets the technical specifications for label applications in the automotive industry

## UL/CSA Approvals

Colour Laser Film black-white is UL-listed under UL-File No. MH 25118 as Colour Laser Film Black/White. The approval refers to pressure-sensitive unprinted laser inscribed label material.

In times where product piracy and stricter product liability laws are increasing, authenticity protection becomes more important than ever. Use the LP130e Laser Marking System for durable labels any kind:

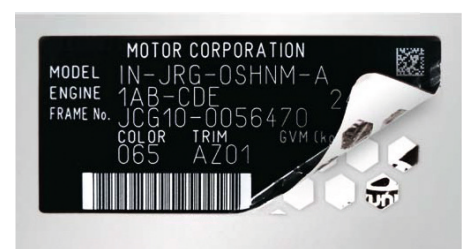


label with hologram



micro-font lettering

Defined breaking points destroy the label during a tampering attempt





# Durable Label Samples Phase change

... from **schreiner**  
ProTech

## Test liquids

## Exposure period

## Change

### Climatic Resistance

Climatic resistance according to DIN 50 017 – KK 240 hrs at 100 % rel. humidity and 40 °C  
Behavior when exposed to changing climatic conditions  
(4 hrs at -30 °C; 16 hrs at 90 °C; 4 hrs at 23 °C), 5 cycles

no change  
no concerns

### Weather Resistance

Meets common standards of the automotive and technical industry

### Resistance to Chemicals and Solvents

Premium gasoline/super petrol	1 h	none
Cold cleaner	1 h	none
Engine oil	1 h	none
Brake fluid	1 h	none
Preservative (car waxes, polishes)	1 h	none
Diesel fuel	1 h	none
Skydrol (adhesive)	2 h	one
Skydrol (surface) Wiping	10 times	none
Salt spray test	acc. to DIN 50021 (168 hrs/5% conc./35° C)	no concerns

### Abrasion Resistance

Crockmeter test acc. to DIN 54021/VDA 621-424

no concerns



For physical samples  
please contact your  
local representative or  
[sales@primera.eu](mailto:sales@primera.eu)

# Durable “Smoke” Labels abrasive

... from **3M**

## Product Description

3M™ Laser Markable Label Material 7847 and 7848 are specialty film label materials where a laser can ablate the top layer of a dual-layer facestock to create an image. The same laser can also kiss cut the label to size, maximizing flexibility for producing variable labels for durable applications.

## Product Properties

### Temperature Resistance

(when applied to aluminium surfaces):

Resistant up to 200°C

275°C for 1 min.

250°C for 5 min.

225°C for 60 min.

### Dimensional Stability:

No changes

Low temperature resistance

without stress: -60°C: No change

with stress\*: -30°C: No change

\*Tested according to Gardner Impact Test

## Product Features

- Cast modified acrylate facestock offers long-term durability and excellent abrasion, temperature, chemical and environmental resistance.
- High-resolution and high-contrast images markable with standard Nd:YAG lasers for smaller barcodes, 2-D symbologies and fine point text.
- Excellent convertibility (“kiss cutting”) of acrylate facestock on densified kraft liner.
- Matte surface provides good printability resulting in excellent bar code readability.
- #350 modified acrylic adhesive provides reliable, permanent adhesion to LSE plastics, oily metals, powder coatings and textured surfaces.
- Brittle facestock material provides destructibility to meet security labelling requirements.
- No corrosive emissions during the laser marking process.
- UL Recognized Component under file MH11410.
- CSA Recognized Component under file 99316.



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# Durable “Smoke” Labels abrasive

... from 

## Product Description

tesa® is a double layer, brittle acrylic film. Marking and cutting are achieved by laser in one step, which makes it possible to realize any desirable label variation and format using only one material. The backing is highly resistant against chemicals, abrasion, temperature and ageing. The adhesive system consists of a resin modified acrylic suitable even for low energy surfaces. This high performance product is used as a tamper evident identification label over the entire lifetime of a product and also as a data carrier system for intelligent in-process steering.

Available in: black (glossy, matte), silver (glossy, matte), white (glossy)

## Product Features

- High contrast and excellent marking precision
- Very resistant to heat, abrasion and chemicals
- Tamper Evident: Manipulation leaves visible trace
- Not removable without destruction of the label
- Flexible formatting and label design: marking and cutting by the laser
- Efficient: Replaces a multitude of pre-made labels
- Just-in-time production reduces storage needs

## Product Properties

**Printability** good

**Temperature resistance short term** 270°C

**Temperature resistance long term** 120°C

**Ageing resistance (UV):** very good

**Frost resistance:** -50°C

**Humidity resistance:** very good

**Resistance to chemicals:** very good

**Storage conditions:**

23°C, 50% RH, stored in original box

TYRE INFLATION PRESSURE

TOTAL 5 PASS.

1-3

0-160 km/h

0-100 mph

35

240

2.4

35

240

2.4

4-5

0-160 km/h

0-100 mph

35

240

2.4

35

240

2.4

1-5

160-MAX km/h

100-MAX mph

41

280

2.8

41

280

2.8

TEMPORARY USE SPARE TYRE

MAX 80km/h / 50 mph

60 psi / 420 kPa / 4.2 bar

TYRE SIZE 235/45WR17


BODY COLOUR 303

TRIM COLOUR K09

CAR NO 13298

12 788 871

12 766 751



printed with Primera's LP130e Laser Marking System on tesa Material

Durable labels for military, medical assets, automotive and more. LP130e is a desktop laser marking system for ablating or phase-changing of durable films.

More information: [primeralabel.eu](http://primeralabel.eu)

For physical samples  
please contact your  
local representative or  
[sales@primera.eu](mailto:sales@primera.eu)

# Durable “Smoke” Labels abrasive

... from  POLYONICS

## Product Description

POLYONICS XC-537 is a 1 mil (25µm) polyimide film with a high opacity, matte black topcoat and white sub-layer specifically designed for a laser marking with a YAG or CO2 marking system. The material uses Polyonics ThermoGard™ technology and includes a high temperature permanent pressure sensitive acrylic adhesive (PSA) and glassine liner.

The XC-537 material is designed to be die-cut into discrete labels by mechanical methods and marked with either a CO2 or YAG laser set to the correct power settings. The markings can be very small and include text, bar code or graphics. The material provides a very readable, high contrast background for compared to direct laser marking. The marked labels provide a durable identification system that can be used in high temperature and harsh environments including chemical exposure. For example, the XF-537 is an excellent option for bar code labels used to track printed circuit boards as the laser marking will survive the requests of MIL-STD-202G, Notice 12, and Method 215K.

## Product Features

- Top or bottom side identification of the printed circuit board
- Automotive under-the-hood identification
- Low profile labelling for silk screening or stacking
- When dimensional stability of the label is critical
- IC labelling for work in process, permanent ID & warranty labelling
- Product ID, asset tracking
- Anywhere a label will be exposed to extreme temperatures, harsh environments and/or exposure to chemicals

## Product Properties

**Thickness:** 0.073mm

### Adhesion on Stainless Steel

20 minute dwell – 27N/100mm

24 hour dwell – 31N/100mm

### Temperature Rating:

Long term: 100 hours at 125°C

Operating: 5 minutes at 260°C

Short term: 90 seconds at 300°C



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# Technical Specifications

... easy and safe to operate



The machine's compact footprint allows you to place printers where they're needed. LP130e meets CDRH and IEC laser safety standards, too. It includes safety features such as a dual interlock safety switch on the top cover.

<b>Print method:</b>	Solid state laser diode
<b>Print resolution:</b>	300 dpi
<b>Min. label roll width:</b>	38mm
<b>Max. label roll width:</b>	130mm
<b>Media types:</b>	Smoke and smokeless laser-marking films
<b>Media sensing:</b>	See-through and black mark reflective sensors
<b>Supply roll:</b>	152mm (6") O.D. on 76.2mm (3") core
<b>Label design software:</b>	NiceLabel SE included Most other Windows-based label design software may also be used.
<b>Operating system:</b>	Windows XP/Vista/7/8
<b>Data interface:</b>	USB 2.0
<b>Indicator lights:</b>	Power, Pause, Label Out

<b>Electrical rating:</b>	12VDC, 5.0 amps
<b>Power requirements:</b>	100-240VAC, 50/60 Hz
<b>Agency approvals:</b>	UL, UL-C, CE, FCC Class A
<b>Laser safety certification:</b>	CDRH and IEC 60825-1
<b>UL laser classification:</b>	Class 1 laser product
<b>Weight:</b>	17 kg (37.5 lbs)
<b>Dimensions:</b>	438mmW x 231mmH x 438mmD (17.25"W x 9.1"H x 17.25"D)
<b>Options:</b>	DF-30e Filtration System
<b>Data interface:</b>	6-pin DIN serial cable



# Built by Primera and Coherent



Primera is one of the world's leading manufacturers of specialty printers. Coherent is the leading OEM laser component manufacturer. Both companies collaborated to develop the LP130e. You can be confident that the LP130e Laser Marking Systems you buy were designed and built by two of the best companies in the business.

**For detailed information on what  
Primera's LP130e can do for you and  
your business as well as lasered label  
samples of your labels at no cost or  
obligation call +49 (0) 611 92777-0**

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