

Product Information / Pre inked stamps

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Additional Information for PRE-INKED Products:

à PI Laser Plate, PI Ink à Product Characteristics, Quality, Processing

Within the framework of its pre-inked programme, Trodat is offering a new product system for the laser engraving field too:

PI P800 Laser slab (microporous) and PI 7090 /7091 Ink for laser slab

The individual components are optimally suited to each other, have been carefully tested and selected in order to guarantee optimal characteristics for end user processing and function. Here are a few important quality criteria which are best fulfilled by our products, even in comparison with competitors' products:

P800 Laser Plate		PI 7090/ 7091 Ink	
<i>Criteria</i>	<i>How well fulfilled:</i>	<i>Criteria</i>	<i>How well fulfilled:</i>
Processing – Laser	Very good	Intensive imprint	Yes
Mechanical loading	Very good	Contour acuity	Very good
Engraving depth	Good	Temperature resistance after inking the thermal die: (after 24 h at 70 °C = e.g. transport)	Good imprints — Only weak imprints with competitors' products!!
Cleaning	Good	Imprint under various climatic influences (heat, cold, high/low air humidity)	Good – Very good
		Evaporation	None = The text die does not dry out!
PVC free	Yes		
Initial inking	Very good / intensive, dark imprint		
Re-inking	Very good (can be used again after 1 h – optimal after about 3 h = double the uptake of after 1 h)	Quality comparison with competitors	Better than the currently known products of other competitors

recommended glue	§ „Technicoll 8008“ Or: § "SCOTCH GRIP 4475" by 3M
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Comparison with Competitors:

After many comparison tests it can be stated that:

*The Trodat PI P800 Laser Plate + 7090/7091 Ink System is, in its quality with regard to processing and its imprint quality, at least comparable with those plates which are recognised as the best on the market (e.g. Kikuchi) and the ink is of outstanding **quality**.*

Information on use – PI 7090 + 7091 Ink:

- This ink is specially suited for use as pre-inking ink for laser plates.
- The initial inking of other manufacturers' PI laser plates is also possible.
- The ink does not evaporate – so there is no drying out of the die
- The ink CANNOT be mixed with the products of other manufacturers.
- The ink is NOT water-soluble
- Re-impregnation of dies ONLY with the original ink / original product

Processing information:for Porous Laser Slab P 800

1. Recommended Setting for Trotec devices:

Setting PLP C25:

	Power	Speed	DPI	flanks	ventilation
• engraving:	100 %	60 %	1000	flat	100 %
• cutting:	100 %	5 %	1500 Hz		

Settings for Speedy :

Speedy 25 W	Power:100%	Speed:8%	500PPI
Speedy 50 W	Power:100%	Speed:16%	500PPI

Recommended settings for lasers of other Suppliers:

Type and Mode	Power	Speed	DPI
25 VVatt Laser - Engraving	100 %	50-60 %	600
25 Watt Laser - Cutting	100 %	35 %	don't cut whole thickness (to avoid burning)
50 VVatt Laser - Engraving	80 %	70 – 90 %	600
50 VVatt Laser - Cutting	80 %	50 %	don't cut whole thickness (to avoid burning)
100 VVatt Laser - Engraving	50 %	80 – 100 %	600
100WattLaser-Cutting	50 %	60 %	don't cut whole thickness (to avoid burning)

Relief for stamps:-0.040" (Standard)

n à Note:

Please note that no two laser machines are identical. Regarding engraving settings, it all depends on the type of engraver used. As each machine may be slightly different and as each user has different needs. VVe suggest starting with these settings for initial testing to work with, and adjust the settings until you get the combination that works best and also should be adjusted to such variable as power surges, cleaning and maintenance, optics focus, settings and exhaust system.

General Inking Procedures For The Porous Laser Slab

- 1) 1) After engraving, the dies must be thoroughly clean to remove residual dust.
- 2) 2) Heat the ink to 142 +/- 2 degree F (= approx. 61°C – or down to 10 degrees less)
- 3) Submerge the dies in the ink making sure they are not stuck to each other. Hold under the surface with linen or similar material.
- 4) Apply vacuum @23 +3 /-0 inches of Mercury. Let the vacuum works for about 15 to 30 minutes, then disconnect the hose to let air (very slowly) into the chamber. The ink will start to penetrate into the dies.
- 5) Repeat Procedure 4).
- 6) Leave the dies inking for about 15 minutes.
- 7) Remove the dies and clean excess ink with clean, white non-linting materials (ie. Rags or Paper towels)
- 8) Stabilize material at room temperature for 30 to 60 minutes on a non-absorbent surface such as plastic or glass.
- 9) Calculate load factor for ink: inked die = un inked die x 1.9 to 2.1

Trodat's recommended Vacuum Inking device for pre-inked laser slabs :



The Vacuum Inking System



Ink Container in the Heating Tank

Some important steps for inking with **LASERLIGHT SYSTEM**.

(more information on: <http://www.laserlight.nl/>)

The LaserLight vacuum device provides an optimum in inking:

- § Contrary to the above mentioned general inking instruction – the LaserLight System apply the dies first under vacuum for 15 minutes – so they take out air from the dies before they are going into the ink
- § After full vacuum is reached, the die basket is lowered into the ink
- § **afterwards** the normal pressure is applied again – the outside pressure will slowly, efficiently and evenly force the homogeneous warm ink into the dies – this step lasts 5 minutes as well
- § put up basket and let drop down excess ink from the basket
- § put dies on paper towels and dab excess ink away from the surface
- § let the dies “stabilize” at room temperature (or better a bit warmer) for approx. 15-30 minutes