

Laser-Alignment-Paper LDT-LP

Industry Standard Laser Alignment Thermal-Sensitive Paper

- Simple
- Quick
- Affordable laser beam alignment

LDT-LP Documents

- Beam shape
- Mode
- Intensity
- Divergence
- Energy distribution



Pulse width range	1 ns to 30 ms
Power level range	5 mJ/cm ² to 20 J/cm ²
Min. beam diameter	6.5 mm
Sheets per box	50 pieces
Sheet size	127 mm x 57 mm


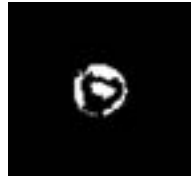

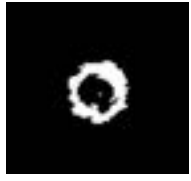
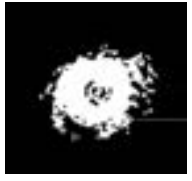

Caution:
Always wear laser protective eyewear

How to Handle the LDT-LP:

- LDT-LP is sensitive over a broad spectrum from ultraviolet to infrared, it is used to align external accessories to the laser beam axis, such as beam expanders, lenses, apertures, attenuators, and power measuring equipment.
- LDT-LP is simple to use. Hold or fasten it in the beam path at the point where the beam imprint is to be recorded. Pulse the laser and a permanent visual record is produced, corresponding to the energy distribution within the laser beam. If the laser being used in continuous wave (CW), you can create a short pulse by Q-switch, mechanical chopper, or by physically turning the laser on and off rapidly.
- For laser with a beam diameter of less than 6.5 mm, please use a diverging lens to enlarge the beam diameter and to achieve a better resolution with the LDT-LP.
Position a positive lens in the beam path and take a picture with the LDT-LP at a distance of >2.5 times the focal length of the lens.
- Please remove fiber optic systems before you take a picture with LDT-LP. In a fiber a mix of modes can occur and you will receive a homogenous image which does not allow conclusions about the irregularities in the beam path.
- Increase or decrease the power of your laser until details of the laser beam are visible on the LDT-LP.
Not all lasers have enough power to leave an image on the paper. As a guide: you will get a good image with a pulsed laser, femto to 50 msec., with at least 10 mJ output. If necessary please fire several pulses on the paper.

The Imprint on LDT-LP Paper Provides Information about

- Mirror alignment accuracy
- Energy distribution, mode quality and edge definition
- Vignetting
- Secondary emissions due to uncoated or mis-placed optics
- Divergence
- Optical damage in the beam path
- Save LDT-LP burns for historical evaluation and comparison of alignment and beam quality. OEMs and field service personnel commonly use previous burn patterns for quick performance checks

Misaligned / Aligned		What your laser beam should look like			
					
3 ms Pulse 0.1 Joules	3 ms Pulse 5.0 Joules	7 ns Pulse 3 mJoules	70 ns Pulse 90 mJoules	70 ns Pulse 310 mJoules	10 ms Pulse 20 Joules