

# OPTOMAN

YOUR SIDEKICK FOR  
LASER OPTICS DEVELOPMENT

***SUPERHERO POWER MIRRORS FOR  
Ti:SAPPHIRE MIRRORS***



## OPTICS FOR Ti:SA LASERS

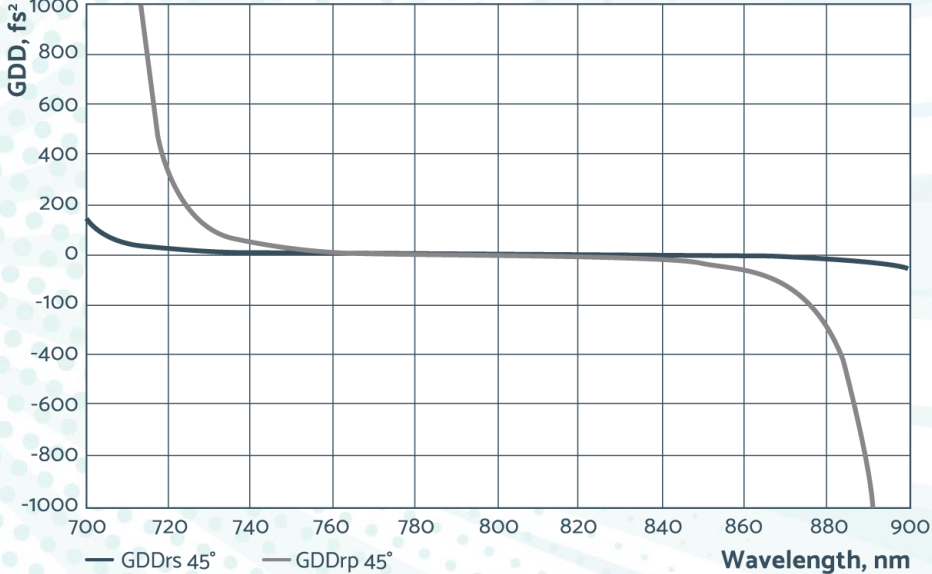
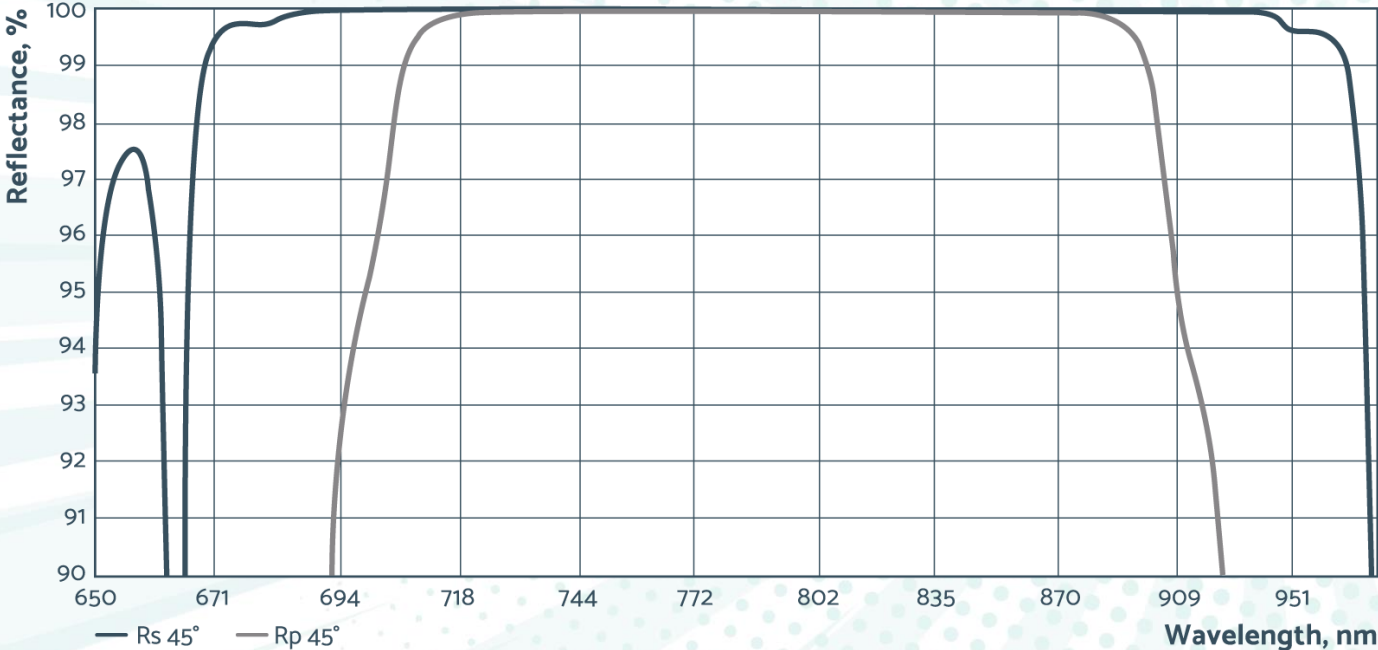
Ti: Sapphire lasers, featuring relatively broad emission wavelengths, typically between 700 nm and 900 nm, sometimes even 650 – 1100 nm, are the tough challenge for optical coatings manufacturers. Especially when you combine such a broad spectrum together with high power few tens of femtoseconds pulses.

However, optical components shouldn't cause a headache for laser manufacturers. So if you're still looking for **durable, long-lasting, high LIDT** optics for your Ti:Sapphire laser, congratulations – you're at the right place!



# DESIGN EXAMPLE

$R_p > 99.9\%$  @ 730 – 870 nm +  $R_s > 99.9\%$  @ 700 – 920 nm, AOI=45° (low GDD)



# LIDT MEASUREMENT

**$R_p > 99.9\%$  @ 730 – 870 nm +  $R_s > 99.9\%$  @ 700 – 920 nm, AOI=45° (low GDD)**

## LASER PARAMETERS

Central Wavelength: 800 nm

Pulse duration (FWHM):  $(47 \pm 5)$  fs

Repetition rate/frequency: 100 Hz

Angle of incidence: 45 deg

## TEST PROCEDURE

Test type: S-on-1 (10k-on-1), R-on-1

Test environment: vacuum  $\rightarrow$  1,  $5 * 10^{-5}$  mbar

**S polarization LIDT:  $1.397 \text{ J/cm}^2$**

**P polarization LIDT:  $0.71 \text{ J/cm}^2$**

**NO COLOR CHANGE**

