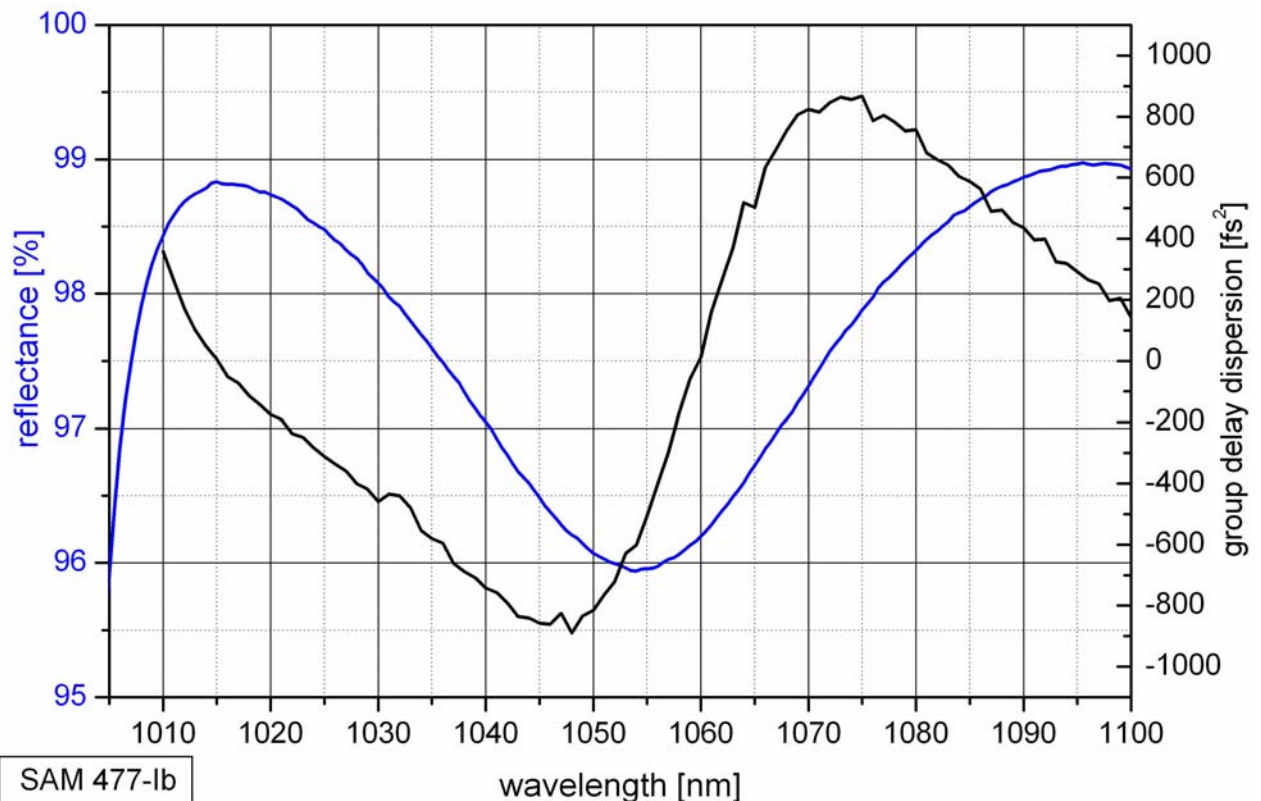


### SAM™ data sheet SAM-1040-3-x-1ps, $\lambda = 1040 \text{ nm}$

|                                     |   |
|-------------------------------------|---|
| Laser wavelength                    | $\lambda = 1040 \text{ nm}$                                       |
| High reflection band ( $R > 96\%$ ) | $\lambda = 1010 \dots 1090 \text{ nm}$                            |
| Absorbance                          | $A_0 = 3 \%$  |
| Modulation depth                    | $\Delta R = 1.6 \%$   |
| Non-saturable loss                  | $A_{\text{ns}} = 1.4 \%$  |
| Saturation fluence                  | $\Phi_{\text{sat}} = 50 \mu\text{J}/\text{cm}^2$                  |
| Relaxation time constant            | $\tau \sim 1 \text{ ps}$  |
| Damage threshold                    | $600 \text{ MW}/\text{cm}^2$                                      |
| Chip area                           | 4mm x 4mm; other dimensions on request                            |
| Chip thickness                      | 400 $\mu\text{m}$   |
| Protection                          | the SAM is protected with a dielectric front layer                |
| Mounting of SAM-1040-3-x            | denotes the type of mounting as follows:                          |
| x = 0                               | unmounted   |
| x = 12.7 g                          | glued on a gold plated Cu-cylinder with 12.7 mm $\varnothing$     |
| x = 25.4 g                          | glued on a gold plated Cu-cylinder with 25.4 mm $\varnothing$     |
| x = 12.7 s                          | soldered on a gold plated Cu-cylinder with 12.7 mm $\varnothing$  |
| x = 25.4 s                          | soldered on a gold plated Cu-cylinder with 25.4 mm $\varnothing$  |
| x = 25.4 w                          | soldered on a water cooled Cu-cylinder with 25.4 mm $\varnothing$ |
| x = FC                              | mounted on a 1 m monomode fiber cable with FC connector           |

#### Low intensity spectral reflectance and group delay dispersion

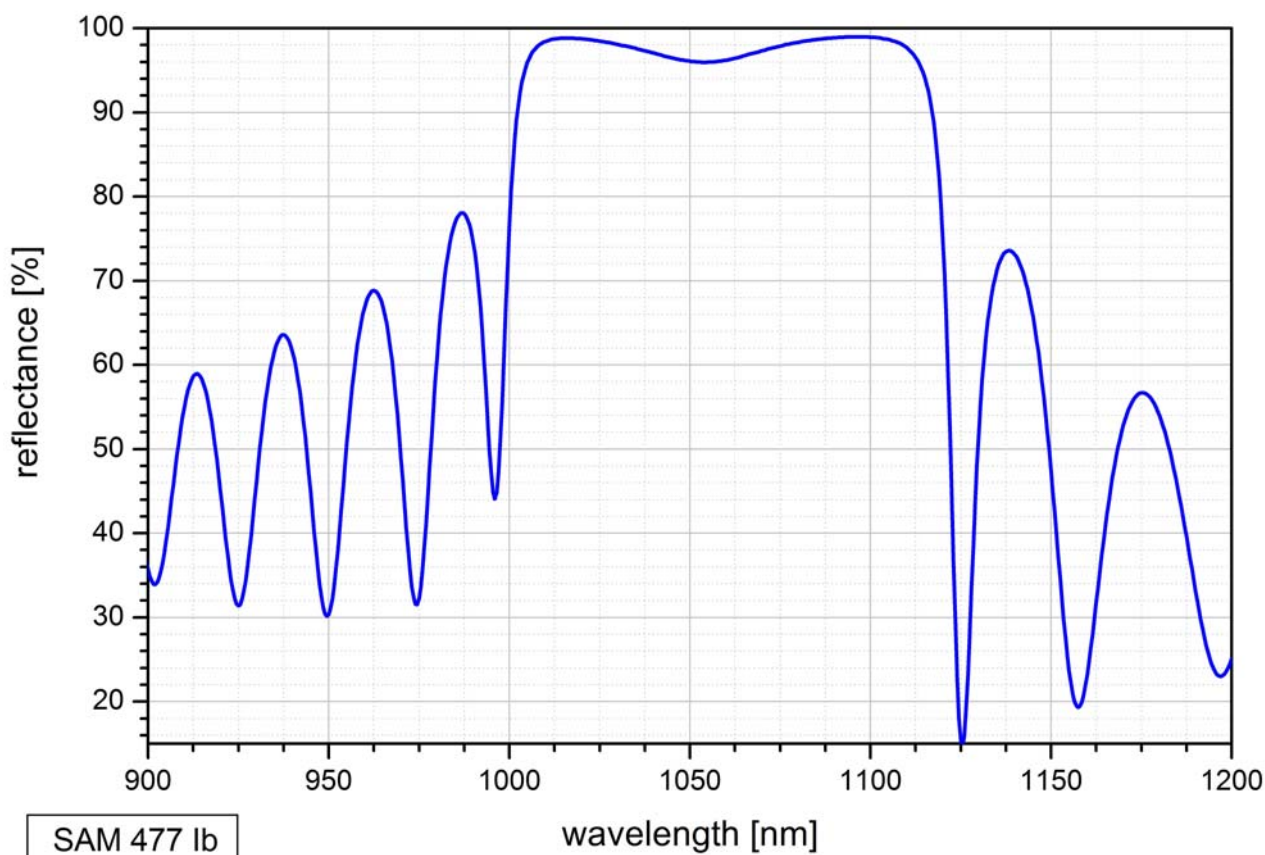


SAM 477-lb

### Group Delay Dispersion (GDD)

Dispersion coefficient  $D_2(\omega) = \frac{\partial^2 \varphi}{\partial \omega^2}$  with  $\varphi$  - reflected phase

$\omega = 2\pi \frac{c}{\lambda}$  - angular frequency



SAM 477 lb