



NANEO[®]

NANEO - Precision IBS Coatings

Technical Data Sheet

Laser Beam Splitter Coatings

- BS / Beam Splitter
- BSN / Neutral Beam Splitter
- BSPP / Phase Polarization Controlled Beam Splitter
- BSDC / Dispersion Controlled Beam Splitter

Short Description

NANEO provides various types of laser beam splitters. The division ratio can be made polarization-insensitive e.g. Neutral Beam Splitters (BSN). The phase for both, s and p-polarization, is preserved by phase control in the Phase Polarization Controlled Beam Splitters (BSPP). The Dispersion Controlled Beam Splitters (BSDC) provides group velocity dispersion control. The Beam Splitters are fabricated with NANEO's proprietary precision coating technology on IBS (Ion Beam Sputtering) coating machines. NANEO achieves unique layer thickness precision. IBS provides the most dense, low loss, stable and enduring optical coatings among the optical coating technologies.

Design Specifications

- Wavelength: Range from 400 up to 1500nm
- R (Amplitude and Phase): customized design
- T (Amplitude and Phase): customized design
- Dispersion control: customized design
- Angle of incidence: certain angle 0 - 45°
- Substrates: customized substrates

Example Design

- Type: BSPP-550-45-SP
- Reflection-Amplitude: $R_s = R_p = 50\% (\pm 2\%) @ 550\text{nm} (\pm 5\text{nm})$
- Reflection-Phase: $\Phi R_s = \Phi R_p (\pm 2\%)$
- Transmission-Amplitude: $T_s = T_p = 50\% (\pm 2\%) @ 550\text{nm} (\pm 5\text{nm})$
- Transmission-Phase: $\Phi T_s = \Phi T_p (\pm 2\%)$
- AOI: 45°
- customized design

