



**Technical
Data Sheet**

Beam Combiner Coatings

BCW / Beam Combiner Wave Length

BCP / Beam Combiner Polarization

**Short
Description**

Beam Combiner Coatings are mirrors for combining two laser beams either by polarization or by wavelength. Steep edges enable dense wavelength coupling. High reflection and transmission values enable a minimum of beam power losses. Power transmission and reflection of several kW are possible. These requirements can only be realized with highly accurate measurement technique during the coating process and with a lot of experience in the design creation. The Beam Combiners 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 |
| Reflection: | > 99% |
| Transmission | > 98% |
| Edge steepness: | < 10nm |
| Angle of incidence: | 45° or specify angle |
| Power: | several kW (transmission and reflection) |
| Substrates: | customized substrates |

**Example
Design**

| | |
|---------------|---------------------------------------------|
| Type: | BCW-T1035-1080/R1010-1025-45°-T>97,0/R>99,0 |
| Reflection: | Rs+p > 99% @ 1010-1025nm |
| Transmission: | Ts+p > 97% @ 1035-1080nm |
| AOI: | 45° |
| | customized design |

