

INO-CNR: Sede Secondaria di Napoli

c/o Comprensorio Olivetti Via Campi Flegrei 34 - 80078 Pozzuoli (NA). Tel.: 081-8675424/6, Fax: 081-8675420.

- <http://www.ino.it/Napoli>

PROPOSTA di AGGIUDICAZIONE di BENI

Al Responsabile del CNR-INO - Sede Secondaria di Napoli

Il Responsabile Unico del Procedimento Ricciardi Iolanda

Vista la Determina a contrattare: Protocollo CNR_INO num.3972 del 11/05/2021

Ritenuto di acquisire la fornitura mediante Acquisto fuori MEPA e con modalità: affidamento diretto art.36 D.Lgs 50/2016

Elenco degli operatori economici in grado di svolgere la fornitura, in seguito a consultazione svolta via EMail o WEB:

Denominazione e/o Ragione Sociale	Codice Fiscale	Data di Invio EMail	Totale Preventivo	File Preventivo Firmato
Massimo Bonfante	BNFMSM61P14F205K	12/05/2021	4335€	ID3805Prev_MassimoBonf_.pdf
CVI laser Optics	nocodicefiscale	17/05/2021	5171€	ID3805Prev_CVIlaserOpt_.pdf
Newport Corporation	nocodicefiscale	17/05/2021	6386€	ID3805Prev_NewportCorp_.pdf

è stato valutato quanto pervenuto ed è stato riscontrato quanto segue:

Tutti i preventivi sono adeguati, con lievi scostamenti da alcuni parametri del materiale richiesto (riflettività degli specchi, riflettività e dimensioni del cubo polarizzatore).

quindi si propone di aggiudicare la fornitura a Massimo Bonfante per la seguente motivazione:

la ditta Massimo Bonfante fornisce il materiale con tutte le caratteristiche tecniche richieste.

E' stato rispettato il principio di rotazione di cui all'art. 30 comma 1 del D.Lgs. 50/2016 cioè non è stato reinvitato alla procedura il contraente uscente e/o l'operatore economico invitato e non affidatario del precedente affidamento nella stessa voce di spesa.

Propone l'aggiudicazione della fornitura alla ditta Massimo Bonfante per un importo complessivo di 4335 EUR IVA esclusa; l'offerta è ritenuta congrua e proficua, in rapporto alla qualità della prestazione, e rispetta gli attuali parametri di mercato.

Quindi chiede di procedere per addvenire all'acquisto dei seguenti beni:

Descrizione	Quantità	Valuta	Prezzo Unitario	Prezzo Totale
FS-FMR-25.4-6.35-HR-1064-45UNP (R >99.3% @1064nm/45° UNP, CA >85% C001049)	15	EUR	78,00	1.170,00
FS-FMR-12.7-6.35-HR-1064-45UNP (R >99.3% @1064nm/45° UNP, CA >85% C001050)	5	EUR	75,00	375,00
FS-FMR-25.0-6.35-HR-532-45UNP (R >99.3% @1064nm/45° UNP, CA >85% C000608)	10	EUR	81,00	810,00
FS-CPOL-25.4-1064 Fused Silica optically contacted cube polariser	4	EUR	495,00	1.980,00
			Imponibile (no IVA) in EUR	4.335,00

CIG: **Z0D31B1FC2** CUP: **B88C16000160001**

Napoli, 17 maggio 2021

Il Responsabile Unico del Procedimento

Iolanda Ricciardi



**massimo
bonfante**
Rappresentanze
per l'elettro-ottica

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mobile +39 335 8222917
e-mail: info@masbonfante.it
web: www.masbonfante.it

Milano, 12/5/2021

Spett.le: CNR-Istituto Nazionale di Ottica
Via Campi Flegrei 34
80078 Pozzuoli (NA)

Alla c.a. Iolanda Ricciardi

Vs rif - CIG: Z0D31B1FC2 - CUP: B88C16000160001

Offerta n. 7302 M/M

A seguito della Vostra gentile richiesta, Vi inviamo l'offerta relativa al materiale **Manx Precision Optics** di Vostro interesse:

Pos.	Modello	Quantità	Costo unitario (euro)	Totale (euro)
1	FS-FMR-25.4-6.35-HR-1064-45UNP R >99.3% @1064nm/45° UNP, CA >85% C001049	15	78,--	1170,--
2	FS-FMR-12.7-6.35-HR-1064-45UNP R >99.3% @1064nm/45° UNP, CA >85% C001050	5	75,--	375,--
3	FS-FMR-25.0-6.35-HR-532-45UNP R >99.3% @1064nm/45° UNP, CA >85% C000608	10	81,--	810,--
4	FS-CPOL-25.4-1064 Fused Silica optically contacted cube polariser, 25.4mm x 25.4mm x 25.4mm (all +/-0.25mm), lambda/8 transmitted wavefront distortion, 20- 10 scratch-dig, less than 5 arc min beam deviation, >=85% clear aperture Coating immersed: >99.5%R s-POL & >95%T p-POL @ 1064nm/45° Outside faces: AR (<0.25%R) @ 1064nm /0° Extinction ratio: 500:1 LDT: 5J cm2, 20ns	4	495,--	1980,--



massimo
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Rappresentanze
per l'elettro-ottica

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web: www.masbonfante.it

CONDIZIONI DI FORNITURA:

Consegna prevista:.....9-10 settimane
Resa:.....f.co Vs sede
Pagamento:.....30 gg.
Validità offerta: 60 gg.
I.V.A.:.....esclusa

Fidando in una favorevole conclusione della trattativa in corso, sempre a Vostra disposizione, Vi preghiamo gradire i nostri migliori saluti.

Massimo Bonfante



An IDEX Optical Technologies Solution

[Home](#) / [Shop Optical Products](#) / [Optical Mirrors](#) / [Narrowband Laser Mirrors](#) / **Y1: High Energy Nd YAG Laser Mirrors, 1047-1064nm**



Y1: High Energy Nd YAG Laser Mirrors, 1047-1064nm

High reflectivity and high laser damage threshold are delivered in these durable, dielectric coated mirrors for Nd:YAG and Nd:YLF laser use. Available optimized at 0° or 45° on flat or curved substrates, they offer > 99.6 - 99.9% reflectivity at the Nd:YAG (1064nm) and Nd: YLF: (1047nm) wavelengths depending on polarization. Custom mirrors are available upon request.

Product Code: Y1, Y2, Y3, Y4

Substrate Material: Standard Grade Corning 7980 1-D (Fused Silica)

Diameter Tolerance: +0/-0.25mm

Thickness Tolerance: ±0.25mm

Wedge: ≤ 5 arc minutes (flat substrates only)

Chamfer: Ø ≤ 50.8mm: 0.35mm leg width at 45° nominal

Ø > 50.8mm: 0.85mm leg width at 45° nominal

Concentricity: ±0.05mm (spherical substrates only)

Radius Tolerance: ±0.5% (spherical substrates only)

S1 Surface Figure: < λ/10 p-v at 633nm before coating; after coating on select substrates

S1 Surface Quality: 10-5 scratch-dig per MIL-PRF-13830b (at 100W)

S2 Surface Quality: Commercial polish

Clear Aperture: ≥ 85% of central diameter

Angle of Incidence: 0° or 45° options

Reflectance: R ≥ 99.9% at 0°

R ≥ 99.6% at 45°, P-Pol

R ≥ 99.8% at 45°, UNP

R ≥ 99.9% at 45°, S-Pol

Adhesion and Durability: Per MIL-C-675c and MIL-C-48497a

Damage Threshold: Pulsed:

25 J/cm², 20ns, 20Hz at 1064nm

20 J/cm², 20ns, 20Hz at 532nm

15 J/cm², 20ns, 20Hz at 355nm

10 J/cm², 20ns, 20Hz at 266nm

cw: 10 MW/cm² at 1064nm

2 Items

Show

15

Position



Y1-1025-45€133.00 ea VOL €

1

[Add to Cart](#)

Inventory: In-Stock: 73 QTY | 2-Weeks: 2 QTY | 8-Weeks: 500 QTY

[Add to Wish
List](#)

Radius (m)	Dimensions (mm)	Thickness (mm)	Shape
N/A	25.4	6.35	Plano

Specifications and Downloads **Y1-0525-45**€102.00 ea VOL €

1

[Add to Cart](#)

Inventory: In-Stock: 178 QTY | 2-Weeks: 93 QTY | 8-Weeks: 500 QTY

[Add to Wish
List](#)

Radius (m)	Dimensions (mm)	Thickness (mm)	Shape
N/A	12.7	6.35	Plano

Specifications and Downloads 



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Y2: High Energy Nd YAG Laser Mirrors, 523-532nm

Y2: High Energy Nd YAG Laser Mirrors, 523-532nm

High reflectivity and high laser damage threshold are delivered in these durable, dielectric coated mirrors for Nd:YAG and Nd:YLF laser use. Available optimized at 0° or 45° on flat substrates, they offer > 99.6 - 99.9% reflectivity at the second harmonic of both Nd:YAG (532nm) and Nd: YLF: 523nm wavelengths depending on polarization. Custom mirrors are available upon request.

Product Code: Y1, Y2, Y3, Y4

Substrate Material: Standard Grade Corning 7980 1-D (Fused Silica)

Diameter Tolerance: +0/-0.25mm

Thickness Tolerance: ±0.25mm

Wedge: ≤ 5 arc minutes (flat substrates only)

Chamfer: Ø ≤ 50.8mm: 0.35mm leg width at 45° nominal

Ø > 50.8mm: 0.85mm leg width at 45° nominal

Concentricity: ±0.05mm (spherical substrates only)

Radius Tolerance: ±0.5% (spherical substrates only)

S1 Surface Figure: < λ/10 p-v at 633nm before coating; after coating on select substrates

S1 Surface Quality: 10-5 scratch-dig per MIL-PRF-13830b (at 100W)

S2 Surface Quality: Commercial polish

Clear Aperture: ≥ 85% of central diameter

Angle of Incidence: 0° or 45° options

Reflectance: R ≥ 99.9% at 0°

R ≥ 99.6% at 45°, P-Pol

R ≥ 99.8% at 45°, UNP

R ≥ 99.9% at 45°, S-Pol

Adhesion and Durability: Per MIL-C-675c and MIL-C-48497a

Damage Threshold: Pulsed:

25 J/cm², 20ns, 20Hz at 1064nm

20 J/cm², 20ns, 20Hz at 532nm

15 J/cm², 20ns, 20Hz at 355nm

10 J/cm², 20ns, 20Hz at 266nm

cw: 10 MW/cm² at 1064nm

1 Item

Show

15

Position



Y2-1025-45

€133.00 ea



1

Add to Cart

Inventory: In-Stock: 64 QTY

| 2-Weeks: 2 QTY

| 8-Weeks: 500 QTY

[Add to Wish List](#)

Radius (m)	Dimensions (mm)	Thickness (mm)	Shape
N/A	25.4	6.35	Plano

Specifications and Downloads 



[Home](#) / [Shop Optical Products](#) / [Beamsplitters](#) / [Cube Beamsplitters](#) /
PBS: Visible and Near-IR Laser line Polarizing Cube Polarizers



PBS: Visible and Near-IR Laser line Polarizing Cube Polarizers

High efficiency, high extinction ratio separation of s- and p-polarization at visible and near-IR laser wavelengths. These high efficiency cube beamsplitters achieve an extinction ratio of > 1000:1 for transmitted p-polarized light while reflecting > 99.9% of s-polarized light at a single visible or near-IR wavelength. They are available in standard wavelengths from 532 to 1550 nm for use at power < 10 mJ/cm². Other wavelengths are available upon request.

Product Code: PBS

Optical Material: N-BK7

Edge Dimension Tolerance (A): ±0.25mm

Surface Quality: 20-10 scratch-dig per MIL-PRF-13830b

Transmitted Wavefront Error (TWE): < $\lambda/4$ p-v at 633nm

Clear Aperture: 85% of central dimension

Field of View: ±3°

Anti-reflection Coating: $R \leq 0.25\%$ per surface

Extinction Ratio: $T_p/T_s > 1000:1$

Transmission Efficiency: $T_p > 95\%$

Reflection Efficiency: $R_s > 99.9\%$

Damage Threshold: Pulsed: 1 J/cm², 20ns, 20Hz at 1064nm

cw: 100 W/cm² at 515nm

1 Item

Show

15

Position



PBS-1064-100

€334.00 ea



1

Add to Cart

Inventory: In-Stock: 0 QTY | 12-Weeks: 500 QTY

**Add to Wish
List**

Wavelength (nm)	Dimensions (mm)	Coating Type	Extinction Ratio Tp/Ts
1064	25.4 x 25.4 x 25.4	Laser Line Dielectric	>1000:1

Specifications and Downloads

High-Energy Nd:YAG Laser Mirrors



Our high-energy Nd:YAG laser mirrors are manufactured using high purity fused silica substrates and ultrahard dielectric coatings. These mirrors are able to withstand high-energy pulses and have a high damage threshold.

- Ultra-hard dielectric coating design
- High damage threshold of up to 45 J/cm²
- R_s>99.7%, R_p>99% @ single or dual wavelengths
- Dual-wavelength mirror for 1064 and 532 nm
- UV fused silica substrate for low thermal expansion and absorption

10Q20HE.1

Nd:YAG Laser Mirror, High-Energy, 25.4 mm Diameter, 45°, 1064 nm

€181

In Stock 

10Q20HE.2

Nd:YAG Laser Mirror, High-Energy, 25.4 mm Diameter, 45°, 532 nm

€170

In Stock 

10QM20HDM.10

Nd:YAG Laser Mirror, High-Energy, 25.4 mm, 0°, 1064 & 532 nm

€368

In Stock 

10QM20HDM.15

Nd:YAG Laser Mirror, High-Energy, 25.4 mm, 45°, 1064 & 532 nm

€317

In Stock 

10QM20HM.10

Nd:YAG Laser Mirror, High-Energy, 25.4 mm Diameter, 0°, 1064 nm

€264

In Stock 

10QM20HM.15

Nd:YAG Laser Mirror, High-Energy, 25.4 mm Diameter, 45°, 1064 nm

€217

In Stock 

10QM20HM.30

Nd:YAG Laser Mirror, High-Energy, 25.4 mm Diameter, 0°, 532 nm

€269

In Stock 

10QM20HM.35

Nd:YAG Laser Mirror, High-Energy, 25.4 mm Diameter, 45°, 532 nm

€213

Show 

5104

Nd:YAG Mirror, 1.0 in. Diameter, 1064 nm

€211

In Stock 

5105

Nd:YAG Mirror, 1.0 in. Diameter, 532 nm

€240

In Stock 

For elliptical Nd:YAG laser mirrors, click [here](#)

Specifications

Wavelength Range	266 nm, 354.7 nm, 532 nm, 1064 nm
Mirror Shape	Round
Diameter	25.4 mm, 50.8 mm
Material	UV Grade Fused Silica or Borofloat® 33
Surface Quality	10-5 scratch-dig, 15-5 scratch-dig
Surface Flatness	$\lambda/10$ at 632.8 nm
Wedge	≤ 3 arc min
Clear Aperture	\geq central 80% of diameter
Thickness	6.35 mm, 8.0 mm, 9.65 mm, 12.5 mm
Cleaning	See How to Clean Optics

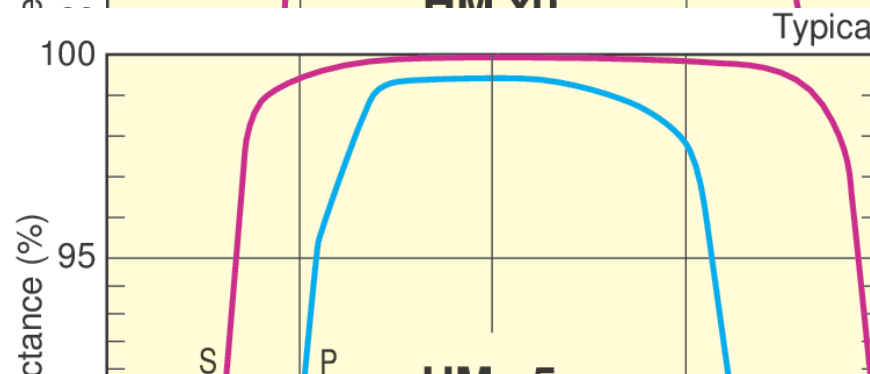
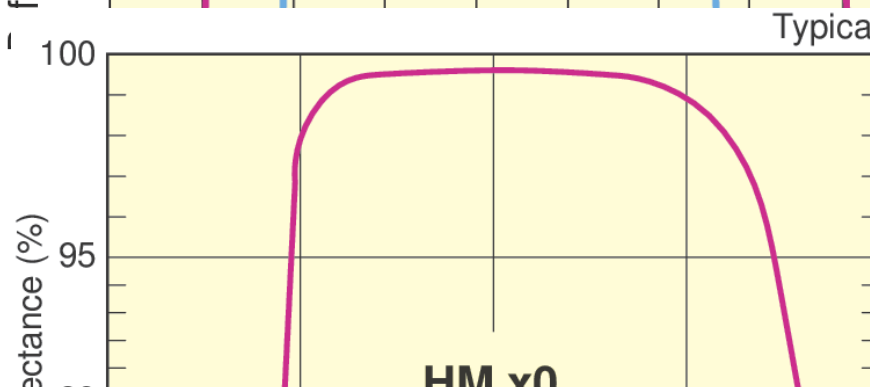
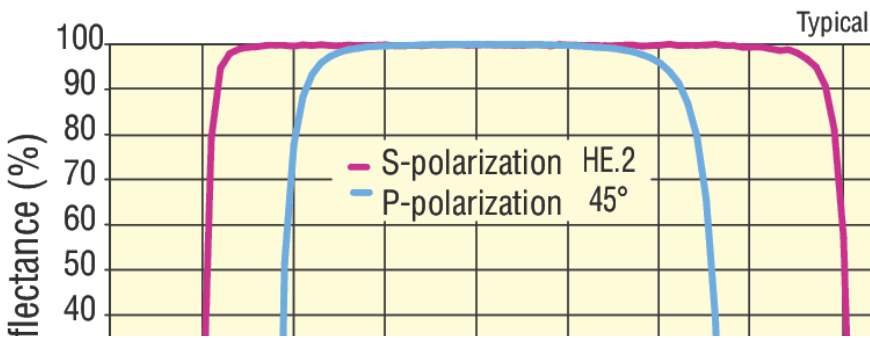
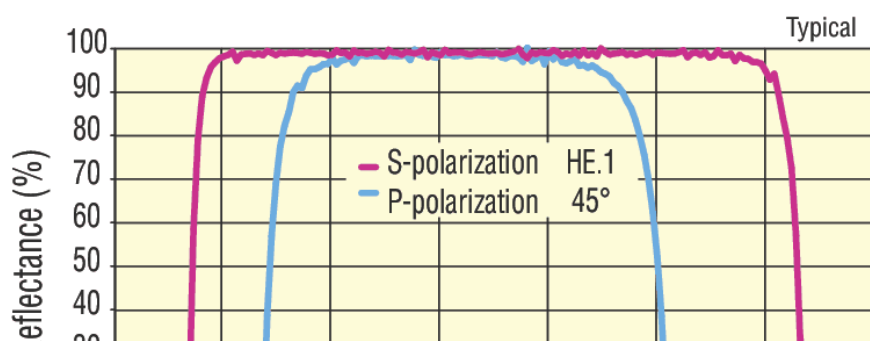
Features

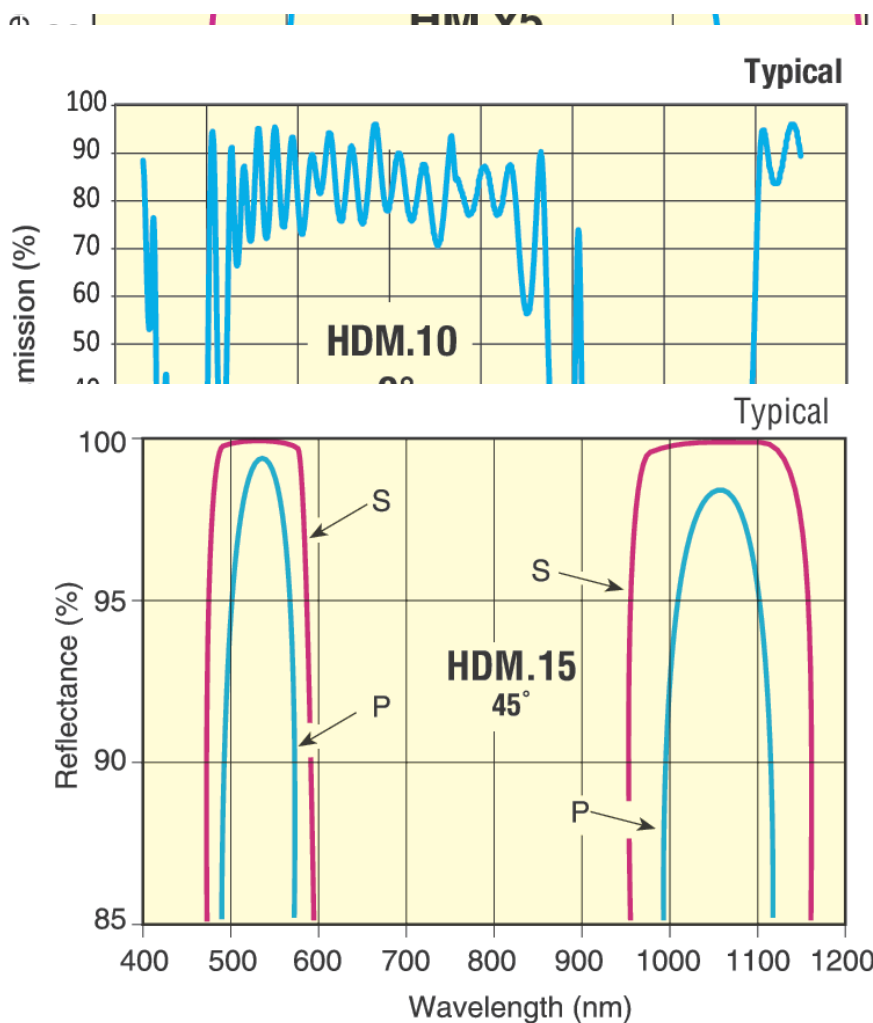
High Damage Threshold

Meticulous production procedures guarantee these mirrors will withstand 45 J/cm² fluences at 1064 nm for the 10QM20HM.10 and 10QM20HM.15 mirrors. Their coatings are highly durable and will withstand repeated cleaning. Our HE.1 and HE.2 coatings can withstand as high as 40 J/cm² at 1064 nm and 10 J/cm² at 532 nm energy fluences respectively.

Coatings for Nd:YAG Fundamental & Harmonic Wavelengths

We offer Nd:YAG mirrors for the fundamental 1064 nm, frequency-doubled 532 nm, frequency-tripled 354.7 nm, and frequency-quadrupled 266 nm laser lines at either 0° or 45° incidence angle. A dual-wavelength mirror for 1064 and 532 nm is also available. Reflectivity is greater than 99.7% for s-polarization and greater than 99% for p-polarization.





UV Fused Silica Substrates


Fused Silica is synthetic amorphous silicon dioxide of extremely high purity. This non-crystalline, colorless silica glass combines a low content of inclusions with high refractive index homogeneity, a very low thermal expansion coefficient, and excellent transmittance in the wavelength regime from UV to NIR. As a result, these mirrors will perform better with temperature fluctuations and is ideal for high-energy laser applications. **Features** High energy damage threshold. For more information, please see our Optical Materials technical note.

Resources

Related Products

Borofloat® 33 Substrates

Borofloat 33 is a high quality borosilicate glass that offers low thermal expansion and high thermal shock resistance. Its material properties and moderate cost make Borofloat 33 an ideal substrate for general purpose applications. For more information, refer to the optical material technical note.

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Borofloat 33 Laser Line Dielectric Mirrors

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Borofloat 33 Laser Line Dielectric Mirrors

These laser line mirrors are highly efficient reflectors optimized for a narrow wavelength range. Each achieves greater than 99% reflectance, from 0-45° angle of incidence, for any polarization. The Borofloat® 33 substrate offers low thermal expansion, and high thermal shock resistance.

- Durable dielectric laser line coatings from UV to NIR
- High efficiency narrowband reflectivity
- $R_s, R_p > 99\%$ at a laser line
- Borofloat® 33 substrates

[See All Features](#)



Compare	Model	Availability	Price
	05D20DM.10 Dielectric Mirror, 12.7 mm Diameter, $\lambda/10$, 1030-1090 nm Laser Line	In Stock	€71

Notes:

For elliptical Borofloat 33 laser line dielectric mirrors, click [here](#)

Specifications

Wavelength Range

325 nm, 441.6 nm, 488-514.5 nm, 532 nm, 632.8 nm,

Angle of Incidence

0-45°

1030-1090 nm, 1520-1580 nm

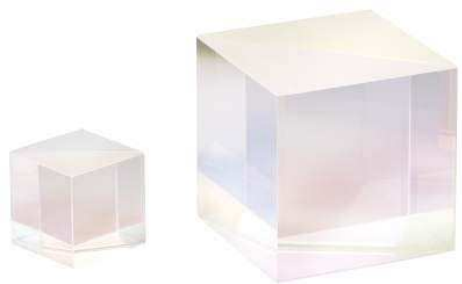
**Borofloat 33 Laser Line Dielectric Mirrors**

Clear Aperture

≥central 80% of diameter

Mirror Shape	Round	Thickness	3.1 mm, 4.57 mm, 6.0 mm, 12.7 mm, 23.5 mm
Diameter	12.7 mm, 19.05 mm, 25.4 mm, 30.0 mm, 50.8 mm, 152.4 mm	Chamfers Angle Tolerance	45° ±15°
Material	Borofloat 33	Cleaning	See How to Clean Optics
Surface Quality	15-5 scratch-dig, 20-10 scratch-dig		
Surface Flatness	λ/10 at 632.8 nm		

Laser Line Polarizing Cube Beamsplitters



- Optimized for higher-power lasers
- Extinction Ratio > 1000:1 for laser line beamsplitters
- Extinction Ratio > 100:1 for UV laser line beamsplitters
- Low wavefront distortion

10BC16PC.9

Cube Beamsplitter, Polarizing, 25.4 mm, 1064 nm Laser Line

€404

In Stock 

Specifications

Shape	Cube
Coating Type	Laser line polarizing
Antireflection Coating	Multilayer broadband dielectric
Orientation	To avoid damage, beam should enter prism marked with a dot
Reflected Beam Deviation	90° ±5 arc min
Transmitted Beam Deviation	≤5 arc min
Wavefront Distortion	≤λ/4 at 632.8 nm over the clear aperture
Surface Quality	20-10 scratch-dig
Surface Flatness	≤λ/4 at 632.8 nm
Clear Aperture	>80% of central dimension
Size Tolerance	±0.254 mm
Operating Temperature Range	-50 to 80°C
Durability	MIL-C-675C, moderate abrasion million cycles
Cleaning	See How to Clean Optics

Features

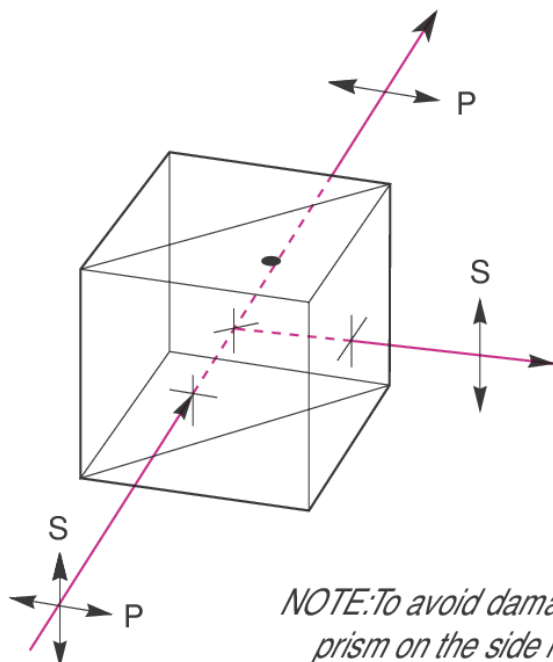
Constructed With Pair of Right-Angle Prisms

These beamsplitters consist of a pair of precision right-angle prisms carefully cemented or optically contacted (models with PC.21, PC.22, and PC.24 coating) together to minimize wavefront distortion. The hypotenuse of one of the prisms is coated with a multilayer dielectric polarizing beamsplitter coating optimized for laser lines. The four faces are antireflection coated with a multilayer dielectric coating to minimize surface reflection losses.



Proper Orientation

Cube beamsplitters are formed by cementing two right angle prisms together. One of the two prisms has the partially reflective metal-dielectric coating applied to its hypotenuse. In Newport's cube beamsplitters the coated prism is marked with a visible dot. Incident light should enter the prism with the coated hypotenuse in order to minimize power passing through the optical cement. Alternatively, a beam entering via the uncoated prism results in more than triple the fluence in the cement (the transmitted component, plus a double pass by the reflected component). With higher power beams this can result in degradation of the cement.

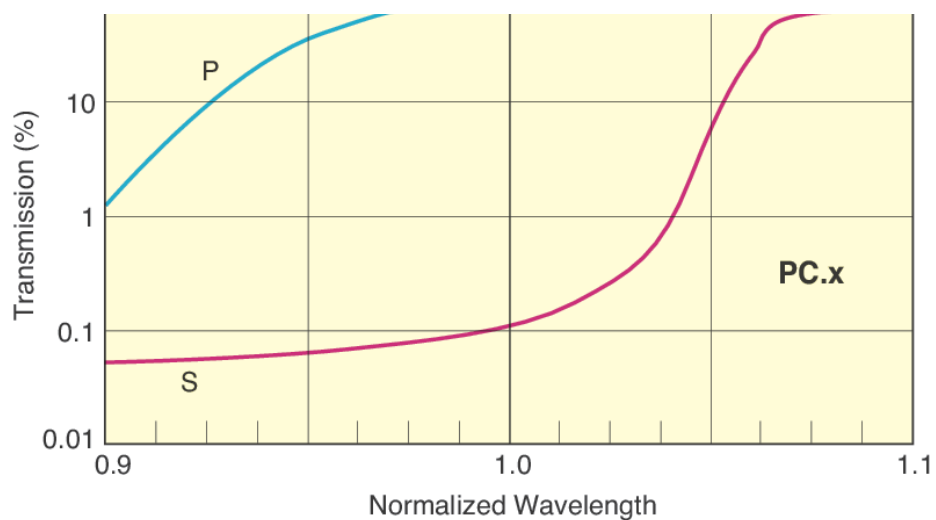


NOTE: To avoid damage, beam must enter prism on the side marked with a dot.

High Polarization Extinction Ratio

An unpolarized beam is split into two orthogonal, linearly polarized components. P-polarized light is transmitted, while s-polarized light is reflected, both with negligible absorption. The extinction ratio is better than 1000:1 for beamsplitter made with N-BK7 glass, and better than 100:1 for beamsplitter made with UV fused silica. These cubes are recommended for use in pulsed laser systems and for purifying polarization in multimode, high-power lasers. Multilayer laser line coatings are offered for 13 laser wavelengths.






Features

Mounting Options

Resources

Related Products

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