## Planargard® NMB Bulk CMP Filters

Advanced node CMP slurry filtration with leading-edge Nanofiber Continuous Melt-blown technology

Entegris' extensive CMP process knowledge and product innovation focus enabled the development of Planargard® NMB filters to address bulk CMP filtration challenges. The Planargard NMB CMP slurry filter is constructed of an advanced polypropylene membrane technology that produces a Nanofiber Continuous Melt-blown (NMB) fiber in-depth media structure. The NMB technology enables yield improvement in bulk chemical distribution system (BCDS) applications at advanced nodes.

To meet all your CMP application needs, our extensive product portfolio includes Planargard NMB filters with retention ratings from 0.05 up to 0.5  $\mu$ m, and Planargard NMB Plus filters with retention ratings from 0.7 up to 5.0  $\mu$ m. Both models are available in 10", 20", 30", and 40" cartridge lengths.

#### Nanofiber Continuous Melt-blown Technology

Planargard NMB filters contain nanofibers and multilayer NMB media for an improved flow path with high retention. The large gradient design can maximize particle-loading capacity and reduce face-velocity due to increased media porosity, providing long-lasting filter performance without compromising filter retention performance.

#### **Target Application**

- Ceria and colloidal silica bulk slurry filtration
- Sub-fab CDS filtration



#### **FEATURES & BENEFITS**

Low shear filtration

Enables high retention performance for bulk chemical distribution system (BCDS) applications at advanced nodes

Prevents filtered slurry to re-agglomerate after aging

Improved nanofiber continuous melt-blown technology

Provides superior defect reduction performance in next-generation CMP slurry

Reduces slurry large particle count (LPC), which in turn minimizes the probability of micro-scratching during polishing

### Optimized graded depth structure

Longer-lasting filter performance

Increased particle-holding capacity

Lower face-velocity due to increased

media porosity

High-volume filter manufacturing

Consistently high-quality performance

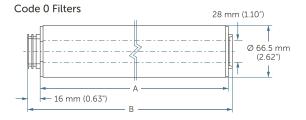
More efficient process with shortened lead time to customers



#### **SPECIFICATIONS**

Materials	Membrane	Polypropylene
	Support	Polypropylene
	Cartridge O-ring	EPR, FKM, Silicone, 2-222
Retention rating	Planargard NMB	0.05, 0.07, 0.1, 0.3, 0.5 μm
	Planargard NMB Plus	0.7, 1, 3, 5 μm
Maximum operating conditions	Maximum temperature: 80°C (176°F)	
	Maximum forward differential pressure: 0.48 MPa (4.8 bar, 70 psi) @ 25°C (77°F)	

#### **DIMENSIONS**

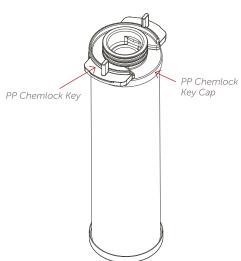


Length	Α	В
10"	240 mm ±2 mm (9.45" ±0.08")	263 mm ±2 mm (10.35" ±0.08")
20"	494 mm ±2 mm (19.45" ±0.08")	517 mm ±2 mm (20.35" ±0.08")
30"	748 mm ±3 mm (29.45" ±0.12")	771 mm ±3 mm (30.35" ±0.12")
40"	1002 mm ±3 mm (39.45" ±0.12")	1024 mm ±3 mm (40.31" ±0.12")

# Code F Filters 28 mm (1.10") Ø 66.5 mm (2.62")

Length	A	В
10"	240 mm ±2 mm (9.45" ±0.08")	251 mm ±2 mm (9.88"±0.08")
20"	494 mm ±2 mm (19.45" ±0.08")	505 mm ±2 mm (19.88" ±0.08")
30"	748 mm ±3 mm (29.45" ±0.12")	758 mm ±3 mm (29.84" ±0.12")
40"	1002 mm ±3 mm (39.45" ±0.12")	1013 mm ±3 mm (39.88" ±0.12")

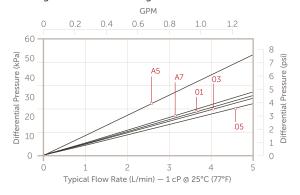
#### View of PP Chemlock® Key on Cartridge



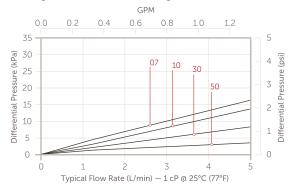
#### PERFORMANCE DATA

\_\_\_

#### Planargard NMB 10" Cartridge Filters

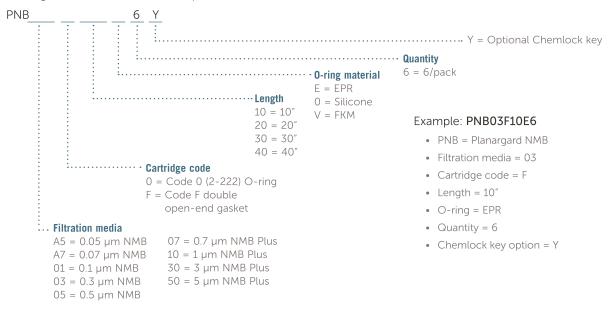


#### Planargard NMB Plus 10" Cartridge Filters



#### ORDERING INFORMATION

Planargard NMB Bulk CMP Filters: part number



#### FOR MORE INFORMATION

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit <u>entegris.com</u> and select the <u>Contact Us</u> link to find the customer service center nearest you.

#### TERMS AND CONDITIONS OF SALE

All purchases are subject to Entegris' Terms and Conditions of Sale. To view and print this information, visit <u>entegris.com</u> and select the <u>Terms & Conditions</u> link in the footer.



Corporate Headquarters 129 Concord Road Billerica, MA 01821

Customer Service

Tel +1 952 556 4181 Fax +1 952 556 8022 Toll Free 800 394 4083

Entegris®, the Entegris Rings Design™, Pure Advantage™, and other product names are trademarks of Entegris, Inc. as listed on <u>entegris.com/trademarks</u>, All third-party product names, logos, and company names are trademarks or registered trademarks of their respective owners. Use of them does not imply any affiliation, sponsorship, or endorsement by the trademark owner.

©2012-2020 Entegris, Inc. | All rights reserved. | Printed in the USA | 4423-6028ENT-0920