

Acid Washed, Molecular Biology, & Low Binding Beads

Grinding Beads for Disrupting Yeast, Molds, and Bacteria

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Sample Preparation Products

Low Binding Beads

Less DNA, RNA, and protein stick to the beads, resulting in higher yields and more sensitive assays

100 μ m Zirconium

100 μ m Silica

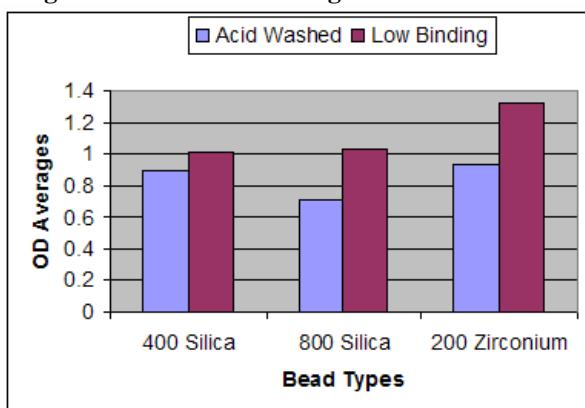
200 μ m Zirconium

400 μ m Silica

800 μ m Silica



Relative Enzyme Activity Liberated from *Saccharomyces* Homogenized with Low Binding and Acid Washed Beads



Benefits

- ❖ Read to use beads, chemically treated to bind less solutes
- ❖ Baked to fully decontaminate prior to use
- ❖ Made from acid washed beads; silica and zirconium dusts and fines removed
- ❖ Available in multiple sizes which are suitable for grinding bacteria, small and large yeasts, filamentous fungi, algae, and pollen

Description

Low Binding Beads are chemically treated so they bind less solutes liberated from homogenized samples. Untreated silica and zirconium beads have surface chemistries that bind DNA, RNA, and proteins upon disruption of cells. Both enzyme and PCR-based assays have lower sensitivity when analytes are liberated using untreated beads. Low Binding Beads yield a greater concentration of solutes and provide greater range and linearity, especially in real-time PCR assays.

Diagnostics now offers pre-filled tubes using our grinding media. Each tube contains 325 μ l of Low Binding Beads in a 2 ml screw-cap microfuge tube. This allows for the homogenization of 650 μ l sample, typically microorganisms, while allowing for the required headspace for efficient disruption by vortexing or bead beating.

Low Binding Beads (bottles)

100 μ m Zirconium Beads, Low Binding (250 gm)
100 μ m Silica Beads, Low Binding (200 gm)
200 μ m Zirconium Beads, Low Binding (250 gm)
400 μ m Silica Beads, Low Binding (200 gm)
800 μ m Silica Beads, Low Binding (200 gm)

Product Number

BLBZ 100-250-14	\$175
BLBG 100-200-11	\$125
BLBZ 200-250-09	\$175
BLBG 400-200-06	\$125
BLBG 800-200-03	\$125

Price

Low Binding Beads (pre-filled tubes)

100 μ m Silica Beads, Low Binding (100/bag)
100 μ m Zirconium Beads, Low Binding (100/bag)
200 μ m Zirconium Beads, Low Binding (100/bag)
400 μ m Silica Beads, Low Binding (100/bag)
800 μ m Silica Beads, Low Binding (100/bag)

Product Number

PFLB 100-100-06	\$99
PFLB 100-100-07	\$99
PFLB 200-100-08	\$99
PFLB 400-100-09	\$99
PFLB 800-100-10	\$99

Price

Grinding Beads – Acid Washed and Molecular Biology Grade

Acid Washed Beads

Untreated beads are contaminated with broken beads, dust, insects, and microbes. Untreated beads are typically used for sandblasting or other abrasive treatments. Beads need to be cleaned and OPS Diagnostics saves researchers the trouble of washing grinding media by providing acid washed beads. Washing with dilute acid removes heavy metals in addition to soluble contaminants. Beads are oven dried prior to bottling.

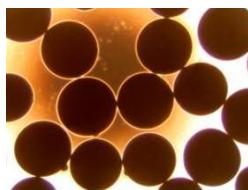


Benefits

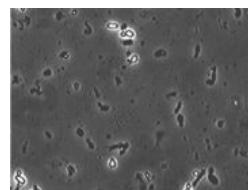
- ❖ Acid washed beads are ready-to-use and void of contaminants present in untreated beads
- ❖ Manufactured using a standard process which generates consistent batches
- ❖ Available in bulk bottles and as pre-filled tubes
- ❖ Decontaminated and suitable for microbiological applications

Acid Washed (bottles)	Product Number	Price
100 µm Silica Beads, 200 gm	BAWG 100-200-10	\$85
100 µm Zirconium Beads, 250 gm	BAWZ 100-250-15	\$135
200 µm Zirconium Beads, 250 gm	BAWZ 200-250-07	\$135
400 µm Silica Beads, 200 gm	BAWG 400-200-04	\$85
800 µm Silica Beads, 200 gm	BAWG 800-200-01	\$85

Acid Washed (pre-filled tubes)	Product Number	Price
100 µm Silica Beads (100 tubes)	PFAW 100-100-01	\$99
100 µm Zirconium Beads (100 tubes)	PFAW 100-100-02	\$99
200 µm Zirconium Beads (100 tubes)	PFAW 200-100-03	\$99
400 µm Silica Beads (100 tubes)	PFAW 400-100-04	\$99
800 µm Silica Beads (100 tubes)	PFAW 800-100-05	\$99



Solid Zirconium Beads (100X)



Yeast ghosts from disruption with 400 µm Silica Beads (200X)

Molecular Biology Grade Beads

Like any product being used for DNA and RNA isolation, beads are a potential source of nuclease and nucleic acid contamination. Molecular Biology Grade Beads are made from Acid Washed Beads by further processing the beads by baking. Beads are then packaged aseptically into RNase/DNase-free bottles. Molecular Biology Grade Beads have all the advantages of Acid Washed Beads but with the value of being safe for molecular biology applications.

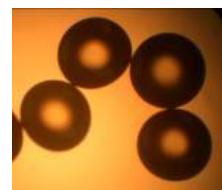


Benefits

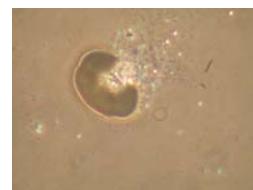
- ❖ Produced from acid washed beads
- ❖ Baked to fully decontaminate prior to use
- ❖ Made from acid washed beads; silica and zirconium dusts and fines removed
- ❖ Available in multiple sizes which are suitable for grinding bacteria, small and large yeasts, filamentous fungi, algae, and pollen

Molecular Biology (bottles)	Product Number	Price
100 µm Silica Beads, 200 gm	BMBG 100-200-16	\$125
100 µm Zirconium Beads, 250 gm	BMBZ 100-250-17	\$175
200 µm Zirconium Beads, 250 gm	BMBZ 200-250-08	\$175
400 µm Silica Beads, 200 gm	BMBG 400-200-05	\$125
800 µm Silica Beads, 200 gm	BMBG 800-200-02	\$125

Molecular Biology (pre-filled tubes)	Product Number	Price
100 µm Silica Beads (100 tubes)	PFMB 100-100-11	\$99
100 µm Zirconium Beads (100 tubes)	PFMB 100-100-12	\$99
200 µm Zirconium Beads (100 tubes)	PFMB 200-100-13	\$99
400 µm Silica Beads (100 tubes)	PFMB 400-100-14	\$99
800 µm Silica Beads (100 tubes)	PFMB 800-100-15	\$99



Translucent Silica Beads (100X)



Pollen cracked with 800 µm Silica Beads (100X)

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