Bead Homogenization Overview

Choosing the correct homogenization bead:

The homogenization beads should be proportional to the size of your sample. When homogenizing very small samples, such as yeast, cell culture or small pieces of tissue, the smallest beads (0.5mm or below) would be recommended. When working with larger samples (large pieces of tissue, plants, seeds, etc.), beads 1.0mm or greater would be recommended.

The tougher the tissue, the denser the bead required. Refer to the known density (g/ml) chart below:

Glass Beads:	*2.5 g/ml*
Zirconium:	*5.5 g/ml*
Stainless Steel:	*7.9 g/ml*

Standard Glass beads (Acid Washed)

Availability:

0.1mm *(D1031-01)*
0.5mm *(D1031-05)*
1.0mm *(D1031-10)*

Ideal for small & softer samples (chemically inert, but lowest density)

Triple-Pure™ (Molecular Biology Grade) Zirconium Beads

Availability:

0.1mm *(D1032-01)*
0.5mm *(D1032-05)*
1.0mm *(D1032-10)*
1.5mm *(D1032-15)*
3.0mm *(D1032-30)*

Best Seller:

Chemically Inert, Triple Pure Cleaning Process Very High Density... High Impact

Standard stainless beads (Acid Washed)

Availability:

2.8mm *(D1033-28)*

For the most difficult samples (not as chemically inert)

Benchmark Scientific Inc. . PO Box 709 Edison, NJ 08817
Phone: 908-769-5555 . Fax: 908-222-1864
Web: www.BenchmarkScientific.com . Email: Info@BenchmarkScientific.com

Bead Application Chart:

	Glass or Zirconium			Zirconium		Stainless Steel
	0.1	0.5	1	1.5	3	2.8
Tissue:						
Skin					•	
Hair					•	•
Nail					•	•
Bone					•	•
Teeth					•	•
Lung				•	•	
Muscle					•	•
Liver				•	•	
Brain				•		
Heart				•	•	
Kidney				•		
Pancreas				•	•	
Fly					•	•
Tick					•	•
Gonad				•	•	
Artery				•	•	
Intestine				•	•	
Cornea					•	•
Tail					•	•
Spleen				•	•	
Ear				•	•	
Microbial:						
Gram +	•	•				
Gram -	•	•				
Yeast		•	•			
Fungi		•	•			
Bacteria	•	•				
Spores		•	•			
Mold		•	•			
Plant:						
Soft Plant Tissue					•	•
Tough Plant Tissue					•	•
Leaves					•	•
Arabidopsis					•	•
Seeds					•	•
Corn					•	•
Nuts					•	•
Rice					•	•
Wheat					•	•
Stems					•	•
Fecal:						
Stool:			•	•		
Scat				•	•	
Soil:						
Soil			•	•		
Coral					•	•

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