Pre-Filled Tubes

Microcentrifuge tubes filled with grinding media are widely used to homogenize samples. OPS Diagnostics offers pre-filled disruption tubes available in a variety of materials, sizes and treatment types.

ACID WASHED

Acid washing the beads removes dust, insects, microbes and particulates that negatively impact samples. Beads are then oven-dried and baked.

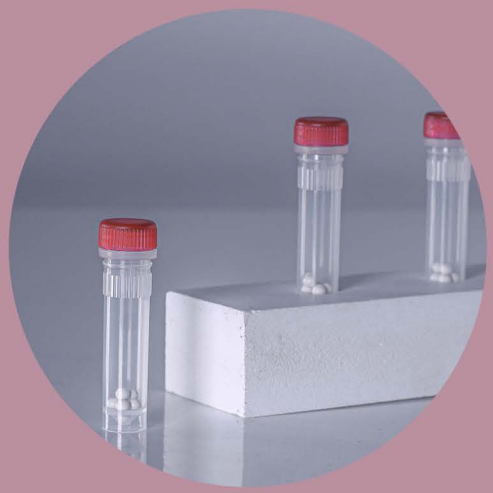
MOLECULAR BIOLOGY GRADE

Molecular Biology Grade Beads are acid washed, heat-treated, aseptically packaged, and entirely suitable for molecular biology applications. Molecular Biology Grade Beads are free of DNase, RNase, protease and nucleic acids.

LOW BINDING

Low Binding Beads are acid washed then chemically modified using a proprietary process to bind fewer biomolecules. They are most useful with extremely small sample volumes.

Media/Size	Suggested Use
100 µm Silica or Zirconium	Bacteria
200 µm Zirconium	Bacteria, small yeasts (e.g. *Pichia*)
400 µm Silica or Zirconium	Yeast (e.g. *Saccaromyces*)
500 µm Garnet	Sample shredding; for use with grinding satellites
800 µm Silica	Mold and pollen
800 µm Zirconium	Mycelia and soft leaves; higher density than silica
1.0 mm Zirconium	Finer soils
1.4 mm Zirconium	Small tissue samples and biomass
1.7 mm Zirconium	Large tissue samples and fine plant material
3.0 mm Zirconium	Larger tissue samples; unlike stainless steel, chemically resistant to organics
4.0 mm Silica	Biofilms and leaf tissue



KEY FEATURES

- Pre-filled and ready to use
- Media is cleaned to remove impurities
- Bead sizes ranging from 100 µm - 4 mm
- Available in skirted or unskirted tubes*
- Custom tubes available upon request
- Custom pre-filled plates are also available

*Beads are also available in bulk (200 g to 300 g)

OPS DIAGNOSTICS

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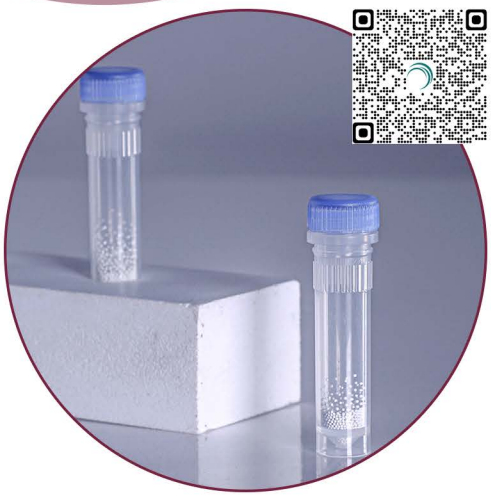

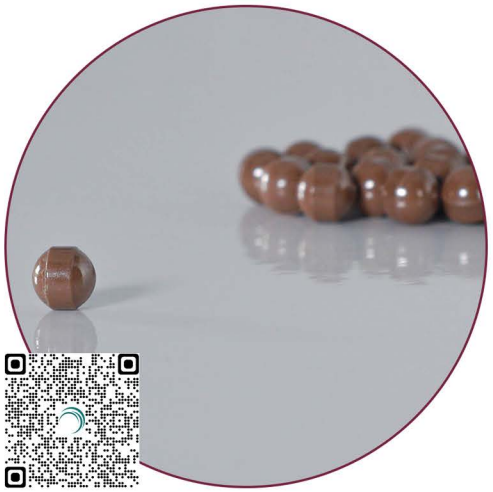

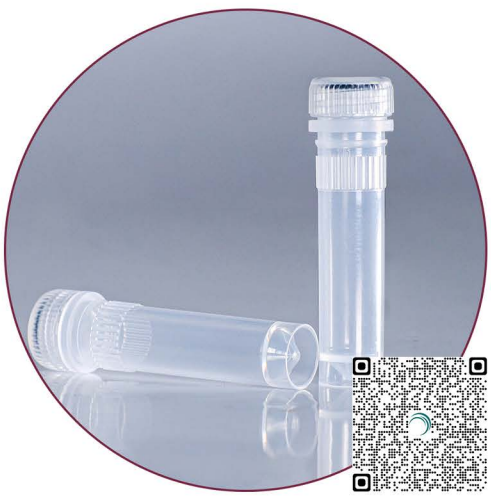

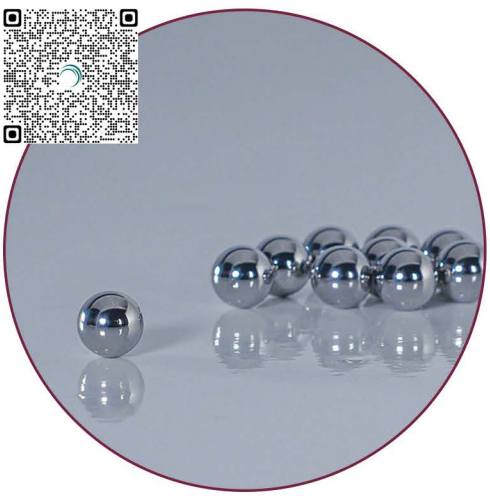

SILICA BEADS	ZIRCONIUM BEADS	STAINLESS STEEL GRINDING BALLS	MIXED MEDIA
Ideal for homogenizing microorganisms, these beads may be modified by adding functional groups using silane chemistry.	Precise and moderately priced, these beads are ideal for most disruption processes. Zirconium silicates are higher in density than glass, but lower than stainless steel and zirconium oxide.	Acid washed, heat- treated, aseptically packaged, and suitable for molecular biology applications.	Combines beads, balls, and satellites of different sizes.
100 - 800 µm	100 µm - 3.0 mm	2.8 mm	100 µm - 6.0 mm
Most cost effective, generates least amount of heat during	Chemically inert, higher density and hardness than Silica	Highest density and hardness, precision cut for exact sizing	Efficient at grinding mixed cultures and environmental samples
Least dense	Generates more heat than Silica	May react with organic solvents, generates most amount of heat	Only available in acid wash