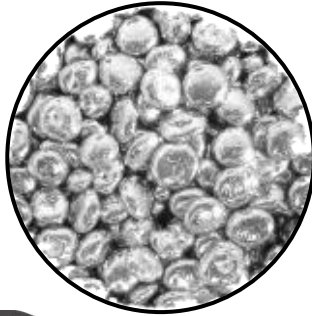


LAB ARMOR[™]

To make sure your experiment doesn't end in the water!

These dry Lab Armor[™] Beads are eco-friendly metallic beads that replace water in existing water baths, aluminium blocks in dry baths and even ice in ice buckets. The innovative beads can also be used in containers placed in ovens and incubators to replace sample racks. The desired temperature between -20 °C and 8 °C can be maintained for more than 4 hours. No more contaminations, no more ruined experiments or lost materials due to open water and ice.



- Constant temperature for more than 4 hours
- Dry and efficient transfer of heat and cold
- For temperatures between -80 °C and 180 °C (depending on experiment)
- Avoids contamination due to spillage or condensed water



67200-001



39956



39438-001



42370



74200-714



74200

Cat.-No. Description

Lab Armor Beads[™]: H x Ø: 1-2 x 5-8 mm, non-permeable for humidity and gases, non-toxic, non-volatile, high thermal conductivity

42370-002 Beads (1 x 2 l)

42370-004 Beads (1 x 4 l)

42370-008 Beads (2 x 4 l)

Trays and Buckets:

39438-002 Walkabout[™] - PVC Tray without Beads, W x D x H: 15.2 x 15.2 x 7.6 cm, for temperatures from -196 °C to 93 °C

39438-001 Walkabout[™] - PVC Tray Walkabout[™] with 1 l Beads

67200-005 Chill Bucket[™] - Polyurethane Bucket, H x Ø: 17.8 x 26.7 cm (without Handles), for temperatures from -193 °C to 100 °C, with Bead Bag and 2 Chill Packs, without Beads

67200-001 Chill Bucket[™] - Polyurethane Bucket with Bead Bag, 2 Chill Packs and 2 l Beads

39956-050 StayTemp[™] - Stainless Steel Tray (1 l) with 1.25 l Beads

39956-001 StayTemp[™] - Stainless Steel Tray (2 l) with 2 l Beads

39956-003 StayTemp[™] - Stainless Steel Tray (4 l) with 4 l Beads

Bead Bath[™]: Temperature range: Ambient plus 5 °C to 80 °C

	Volume	Exterior dimensions / Interior dimensions (W x D x H)	Beads
74220-706	6 l	40.4 x 31.2 x 21.6 cm / 30.5 x 15.5 x 15.2 cm	5 l included
74200-706	6 l	40.4 x 31.2 x 21.6 cm / 30.5 x 15.5 x 15.2 cm	not included
74220-714	14 l	40.4 x 47.0 x 21.6 cm / 30.5 x 30.7 x 15.2 cm	12 l included
74200-714	14 l	40.4 x 47.0 x 21.6 cm / 30.5 x 30.7 x 15.2 cm	not included
74220-720	20 l	40.4 x 59.3 x 21.6 cm / 30.5 x 43.4 x 15.2 cm	15 l included
74200-720	20 l	40.4 x 59.3 x 21.6 cm / 30.5 x 43.4 x 15.2 cm	not included

LAB ARMOR™ for Heating Baths

Tips and Hints

- Keep bath dry of liquids during use to avoid damaging bead performance.
- Clean beads before use or re-use.
- If necessary, disinfect beads periodically with 70 % ethanol solution. Let beads dry completely.
- Avoid using strong acids and bases, as well as bleach solutions and detergents.
- Always use gloves when handling beads to avoid contaminating the bath.

Preparation

Water Baths with Recessed Elements and Thermostats

- Switch bath to OFF position, unplug and empty water.
- Clean bath thoroughly with soap and water, rinse tub with 70 % ethanol and allow to completely dry.
- Once completely dry, fill bath up to 4 cm from top of bath with Lab Armor™ beads.

Water Baths with Exposed Elements and Thermostats

- Switch bath to OFF position, unplug and empty water.
- Remove metal base plate to uncover thermostat or heating elements.
- Clean bath thoroughly with soap and water; rinse tub with 70 % ethanol and allow to completely dry.
- Clean metal base plate thoroughly with soap and water; rinse tub with 70 % ethanol and allow to completely dry.
- Once completely dry, first fill space beneath metal base plate with beads, then replace the plate
- Finally, fill bath to 3/4 volume with beads

Standard Set-up for Common Water Baths

- Plug in bath and switch to ON position: set bath to desired temperature.
- Allow bath to equilibrate overnight; bath temperature will rise 10 °C or more above set point during equilibration
- Alternatively, after 5 to 10 minutes, stir rigorously with a stir rod and allow bath to equilibrate 2 to 5 hours
- Briefly stir beads before and after each use to ensure uniform heating.

Quick Start Set-up to 37 °C

- Set bath to 37 °C, stir rigorously with a stir rod after 5 to 7 minutes.
- Switch bath to OFF position for 15 minutes.
- Switch bath to ON position and check bath's digital temperature readout:
 - If < 37 °C: Allow to heat for 0.5 to 2 more minutes, stir, switch bath to OFF position for 5 minutes, then switch bath to ON position and re-check bath's digital temperature readout.
 - If > 37 °C: Stir bath rigorously for 1 to 2 minutes and allow bath to return to 37 °C.

Caution!

**During bath set-up, beads can become extremely hot near the bath's heating element generally located at the base of the unit.
Always use a stir rod to mix heated beads!**