

NALGENE® Dewar Flasks

Catalog Numbers 4150-1000, 4150-2000, 4150-4000, 4150-9000

These flasks are for short-term storage of ice water, dry ice-solvent, liquid nitrogen and hot fluids. Available in 1-, 2-, 5-, and 10-Liter sizes. Key features include:

- Can withstand temperatures from -196°C to $+100^{\circ}\text{C}$
- Safe to use with ice water, dry-ice solvent, liquid nitrogen or hot baths
- Double walls molded of high-density polyethylene (HDPE),
- Filled with foamed urethane insulation
- HDPE Cover
- Polyethylene-coated bail-type steel handle for added safety and ease of use
- Large opening for easy access
- Built in spout for easy pouring
- Finger grip on bottom for secure handling
- Metal tabs keep lid securely in place
- Molded-in ribs for easy handling
- Low center of gravity to reduce accidental spills

To remove cover, align cutout in cover with rear metal tab (opposite pour spout), tilt cover and lift. To replace cover, align cut-out in cover with rear metal tab, tilt cover and slide opposite side of cover under the two metal tabs nearest pour spout. Rotate cutout to spout for easy pouring. Rotate cutout to position between metal tabs to keep cover in place.

Performance Data

Catalog Number	4150-1000	4150-2000	4150-4000	4150-9000
Volume	1 Liter	2 Liter	5 Liter	10 Liter
Hours:				
To 50% Liquid Nitrogen ¹	3.75	5.25	7.25	11.5
To 0% Liquid Nitrogen ¹	9	14	19	29
To reach Room Temp. from 0°C	64	74	117	140
To reach Room Temp. from 90°C	40	60	80	95
For Dry Ice/Acetone to reach -40°C	9	18	24	37
To 50% Dry Ice ²	9.5	12.25	16.25	22
To 0% Dry Ice ²	19	24	40	44

¹Dewars filled with Liquid Nitrogen to approximately 75% capacity at time 0. Percent remaining determined by weight.

²Dewars filled with Dry Ice to approximately 80% capacity at time 0. Percent remaining determined by weight.

NOTE: When well of Dewar flask is cooled abruptly, you may hear a crackling noise caused by contraction of the plastic. This is normal.

Useful Laboratory Cooling Mixtures	Mixture Temperature ¹	
	°C	°F
Ice Water	0	32
Sodium Chloride/Ice (33-g salt/81-g ice)	-21	-6
Calcium Chloride/Ice (100-g salt/81-g ice)	-40	-40
Chloroform/Liquid Nitrogen (slush)	-64	-83
Dry Ice/Acetone	-78	-108
Dry Ice/Isopropanol	-78	-108
Toluene/Liquid Nitrogen (slush)	-95	-139
Pentane/Liquid Nitrogen (slush)	-130	-202
Isopentane/Liquid Nitrogen (slush)	-160	-256
Liquid Nitrogen	-196 ²	-320 ²

¹The actual mixture temperature is affected by impurities and therefore is approximate.

²Caution: At these low temperatures, the flask will withstand thermal shock but becomes somewhat brittle. Avoid dropping heavy objects into flask, otherwise use it freely at these temperatures.

Ordering Information

Catalog Number	4150-1000	4150-2000	4150-4000	4150-9000
Capacity	1 Liter	2 Liter	5 Liter	10 Liter



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