

## BD Falcon Erlenmeyer Flask

### Frequently Asked Questions.

BD Falcon™ erlenmeyer flasks are disposable culture and storage vessels for cell biology, microbiology, or molecular biology applications. They are ideal for use on shaker equipment for culturing bacterial, yeast, and mammalian cells as well as for reagent storage.

#### What material is the BD Falcon erlenmeyer flask made of?

The flasks are made from optically clear polycarbonate resin that provides uninhibited visualization of sample or media.

#### What is the cap material made of?

The cap is made of polypropylene.

#### What is the vent membrane material in the cap made of?

The vent membrane is made of polytetrafluoroethylene (PTFE).

#### What is the pore size of membrane in the cap?

The vent membrane is 0.2 µm.

#### What is a DuoCAP?

The flasks feature a unique, leak-proof patented DuoCAP™ cap which has a vented (0.2 µm) membrane for aerobic (sterile air exchange) or anaerobic (no air transfer) applications. The DuoCAP versatility enables both aerobic and anaerobic cultures to be performed in the same flask without changing the cap.

#### Do you know how much air can flow through the PTFE membranes in the BD Falcon erlenmeyer flasks?

The Air Flow Rate for the vent membrane is 3 L/min/cm<sup>2</sup>.

#### Can both the flasks and caps be autoclaved?

Yes – both the flasks and caps are designed to withstand repeated steam sterilization cycles. Autoclave instructions can be found in the “Guidelines for Use”.

#### How many times can the flasks and caps be autoclaved?

The flasks and caps have been autoclaved through 10 cycles with fill volume of 25-40% of the nominal flask volume with no damage. There is some evidence of flasks that have been autoclaved up to 30 times without any signs of damage.

#### If media boils over in the flask during autoclaving, will the PTFE membrane be ruined for further use and autoclave cycles?

If the media in the flask overflows during the autoclave cycle, there is no effect on the membrane itself. However, if this does occur we recommend replacing the cap. Replacement caps for 125, 250, and 500 ml flasks (cat. no. 355135), and for 1000 and 2000 ml flasks (cat. no. 355136) are available.

### **What are the sterility and product assurance claims of the BD Falcon erlenmeyer flasks?**

The flasks are nuclease-free, non-pyrogenic, non-cytotoxic, and exhibit sterility to SAL10<sup>-6</sup>. The flasks are also inert, non-leaching and feature a wide temperature tolerance and uniform thickness. BD Falcon™ erlenmeyer flasks meet United States Pharmacopeia (USP) Class VI standards.

### **What is the product regulatory classification?**

1. In the United States – FDA Class I Medical Device exempt (the flask can be used for GMP manufacturing in the US).
2. In Europe – not classified as a Medical Device (no CE mark).

### **Is there an expiration date on the products and/or packaging?**

No. Sterility of the packaging is assured unless the integrity of the packaging is compromised or indicated otherwise.

### **What is the temperature stability of BD Falcon erlenmeyer flasks?**

BD Falcon erlenmeyer flasks are stable from 0°C to 130°C. At lower temperatures polycarbonate is stable to -40°C.

### **Do BD Falcon erlenmeyer flasks have graduations?**

Yes. The BD Falcon erlenmeyer flasks have molded-in graduations.

### **How precise are the volume marks on BD Falcon erlenmeyer flasks?**

Since the BD Falcon erlenmeyer flask is made by injection blowing process, the wall thickness will not be 100% consistent after the "blowing" process. Therefore, the accuracy of the graduation is not 100% precise. It is mainly used for reference only.

### **What are the key applications of BD Falcon erlenmeyer flasks?**

BD Falcon erlenmeyer flasks are ideal for various applications that include suspension cultures of mammalian cells, microbes, insect cells, yeast, plants and algae, production of viral vectors, media preparation and media/reagent storage, and all related applications.

Key applications include the following:

1. Protein expression (native and recombinant)
2. Bacteria/plasmid growth
3. Vaccine manufacturing
4. Monoclonal antibody production
5. Insect cell growth
6. Seeding bioreactors

### **When should I use the baffled-bottom BD Falcon erlenmeyer flasks?**

The presence of baffles or plastic indents on the bottom surface of the flask increases agitation and aeration of the culture. Baffles can improve cell growth and are recommended for microbiology applications (e.g., bacterial culture).

### **What shaker tables can be used with the BD Falcon erlenmeyer flasks?**

The flasks are compatible with standard shaking incubator tables and clamps (e.g., Brunswick or Thermo Fisher shaking incubator).

### What is the shaker speed?

It is recommended to set the rotational speed between 50-200 rpm. The optimal speed is cell type dependent. Optimization of the rotational speed should be performed to achieve best results.

### What detergent can be used to wash and clean the BD Falcon erlenmeyer flasks?

We recommend a non-ionic detergent for cleaning the flasks.

### What is the fill volume of BD Falcon erlenmeyer flasks?

The recommended fill volume is 25-40% of the nominal flask volume.

### What is the seeding density in the BD Falcon erlenmeyer flasks?

Start with a seeding density of  $1 \times 10^5$  cells/ml. The optimal seeding density for your cell type should be optimized in order to achieve the best results. Results will vary depending on the cell type and media conditions.

### What are the dimensions of BD Falcon erlenmeyer flasks?

Cat. No. §	Volume (ml)	Height (mm)	Base Diameter (mm)/type	Neck Diameter (mm)	Cap Size *
355115	125	107	71/Baffled	34.5	38-430
355117	125	107	71/Flat	34.5	38-430
355119	250	133	84/Baffled	34.5	38-430
355121	250	133	84/Flat	34.5	38-430
355123	500	160	105/Baffled	34.5	38-430
355125	500	160	105/Flat	34.5	38-430
355127	1000	211	137/Baffled	49	53B
355129	1000	211	137/Flat	49	53B
355131	2000	265	165/Baffled	49	53B
355133	2000	265	165/Flat	49	53B

§Overhead space for all the BD Falcon erlenmeyer flasks is 20%.

\*38-430 cap has a diameter of 38 mm and fits a container with a 430 GPI thread finish. GPI refers to the “Glass Packaging Institute” which is responsible for establishing and issuing uniform standards regarding the types of finishes produced by American Glass Manufactures. The thread on the 1 and 2 liter flasks is 53B.

