

FactSheet PPE: Lab Coats

Research and teaching activities often require personal protective equipment (PPE) to ensure maximum safety of personnel. A lab coat is an essential component of PPE for many types of laboratory work. This fact sheet will assist the researcher in selecting the appropriate lab coat type for the hazard encountered.

Tips on Wearing Lab Coats

- Always ensure **lab coat fits properly**; tailor as necessary.
- Wear **appropriate clothing under lab coat** including long pants and closed-toe shoes. Wear personal clothing that is **natural rather than synthetic fibers** (cotton jeans vs. Lycra leggings) if working with flammable liquids or open flames.
- Fully button/snap the lab coat and wear in conjunction with other PPE such as eye protection and gloves.
- Lab coats provide moderate protection against chemical exposure, but may degrade over time. **Replace if heavily soiled** or visibly degraded.
- Immediately remove and dispose as hazardous waste if grossly contaminated.

Lab Coat Selection Guide

Flame Resistant, Nomex®

Nomex® is a meta-aramid synthetic fiber that provides the highest level fire protection for a lab coat. The material is intrinsically flame resistant. Its protection will not diminish over repeated washes. Appropriate for protecting against the following:

- Open flames
- Electrical arc flash hazard
- Extreme fire hazard (e.g., large volumes of flammable materials)
- Organometallic compounds, metal hydrides, alkali metals, or other materials that ignite on contact with air (pyrophoric) or moisture

Flame Resistant, Treated Cotton

Cotton lab coats that are treated with flame resistant material provide a good balance of protection from chemicals, and low-to-medium fire risk procedures.

- Not appropriate for use with pyrophoric materials. Must use Nomex® (see above)
- Appropriate for limited work with well-controlled open flames (e.g., bunsen burner)
- Appropriate for work with solvents and other flammable liquids
- The flame retardant properties of the coat may decrease after frequent laundering; replace according to manufacturer recommendations

Standard Cotton

Coats made from 100% cotton are not as fire resistant as Nomex® or treated cotton, however, unlike synthetic blend coats, the cotton coat will not melt and adhere to the wearer.

- Appropriate for use when working with chemicals, radioactive materials, or physical hazards, **but only where risk of fire is low**
- Flammable liquids - only appropriate for use with minor volumes of flammable materials under low risk conditions (e.g., undergraduate teaching labs)

Fluid Resistant

Barrier coats are made from 100% polyester and prevent fluid penetration.

- Appropriate for use when working with biological materials, bodily fluids, blood, blood-borne pathogens, tissue, cell lines, microbial cultures, and other potentially infectious materials.
- Polyester coats will readily burn and melt, and should never be used with pyrophoric substances, flammable liquids, or around open flames (e.g., bunsen burner)



Laundering Service for Lab Coats

To launder lab coats by Angelica, the lab coats must have Angelica barcodes (see example at right). The barcodes have the following information encoded: Principal Investigator; Department; School; Building Code; Lab Room; **PU/DO location** (UPC or HSC); and Angelica account number.



STEP 1

- Drop soiled, Angelica-barcoded lab coat in hamper at **Pick Up location****
- Lab coats that do not have an Angelica barcode will not return from the laundering plant*



Weekly Laundering Cycle

NOTE: If coats remain in hamper for over a week, contact Angelica Customer Care at 888.293.2100

STEP 3

- Lab coats returned to **Drop Off locations** weekly
- NOTE:** If coats do not return, contact Angelica Customer Care at 888.293.2100



STEP 2

- Soiled lab coats picked up weekly and washed at laundering facility



Keep at least one lab coat available for use at all times

*Without a barcode to identify the owner, soiled lab coats may not return from the laundering facility. To ensure your lab coat is returned:

- Complete an **Angelica Repair Tag** for each lab coat that needs to be barcoded.
 - Include PI Name; Department; School; Building Code; Lab Room no.; and **PU/DO location**.
- Secure repair tag to the lab coat with safety pins and place lab coat in plastic bag. Do not place in soiled garment locker or scissor bag stand without placing first in a plastic bag.
- Contact Angelica Customer Care 888.293.2100 to notify them of your request.

The lab coat(s) will be barcoded, laundered, and returned to the assigned **PU/DO location** (UPC or HSC) based on the repair tag information.

Research groups relocating to another building will need to have their lab coats re-barcoded to ensure that the lab coats return to that building or a convenient **PU/DO location** (UPC or HSC) nearby.

**UPC locations: https://adminopsnet.usc.edu/sites/default/files/all_departments/EHS/PU_DO%20locations_UPC.pdf
 HSC locations: https://adminopsnet.usc.edu/sites/default/files/all_departments/EHS/PU_DO%20locations_HSC.pdf

Angelica REPAIR TAG	
Use one repair tag for each garment	
Select all that apply:	
<input type="checkbox"/> Apply Angelica barcode	
<input type="checkbox"/> Repair lab coat	
<input type="checkbox"/> Button	<input type="checkbox"/> Pocket
<input type="checkbox"/> Snap	<input type="checkbox"/> Belt loop
<input type="checkbox"/> Torn	<input type="checkbox"/> Cuff
<input type="checkbox"/> Collar	<input type="checkbox"/> Other
<input type="checkbox"/> Sleeve	<input type="checkbox"/> Logo
Check lab coat type and size	
<input type="checkbox"/> Flame Resistant, Nomex	<input type="checkbox"/> Extra Small (XS)
<input type="checkbox"/> Flame Resistant	<input type="checkbox"/> Small (S)
<input type="checkbox"/> Standard Cotton	<input type="checkbox"/> Medium (M)
<input type="checkbox"/> Fluid Resistant	<input type="checkbox"/> Large (L)
	<input type="checkbox"/> Extra Large (XL)
	<input type="checkbox"/> Other
Barcode information	
PI Name	Date
Lab Location (e.g., SGM 112)	Pick Up/Drop Off*
Department:	School:
Angelica Account No. **	
Contact information	
Name	Phone

* Contact EH&S at 323.442.2200 if unsure of Pick Up/Drop Off location
 ** Contact Angelica Customer Care at 888.293.2100 if unsure

Questions? Contact EH&S at 323.442.2200 or labsafety@usc.edu