

Disposable Gloves Buyers Guide

Disposable Gloves

"Disposable gloves are, under EU Health and Safety rules, officially an article of Personal Protective Equipment (PPE) and as such there is a duty on both the Management and users of gloves to carry out due diligence to ensure the safety of the glove user."

The enclosed information is provided to help you assess and determine what type of glove and glove material would best suit your requirements.

Within this guide we have not attempted to determine which glove you should choose as there are too many variables to be considered which means that each department will need to assess the environment in which they work, the procedures being carried out and the materials to be used and tested.

Disposable Glove Types

General Purpose Gloves:

- Usually made from a form of plastic.
- Loose fitting.
- Ambidextrous - fit either hand.
- Ideal in situations where a user is just wanting to stop hands from getting soiled (dirty).

Medical Examination Gloves:

- In Europe, examination gloves are manufactured to either EU PPE Standards or European Medical Devices directive product standards.
- Ambidextrous - fit either hand.
- Fit the hand for maximum comfort security and sensitivity.
- Can have a beaded cuff to help as an aid to donning and removing and also as a extra barrier security at the wrist.
- Available either powdered or powder free.
- Available either 'Sterile' or 'Non-Sterile'.

Procedural/Surgical/Surgeons:

- Are a high quality product giving maximum security and fit.
- Are hand specific - fit either left or right hand, are sized in half sizes from 5.0 to 9.5 and are usually packed in pairs if sterile and boxes of gloves split left and right if non-sterile.
Note: All surgical/surgeons gloves are sterile.
- Are the best at providing protection but are also the most expensive disposable gloves produced.
- Are used for specialiest procedures where maximum barrier protection and/or high levels of dexterity are required.

Disposable Glove Risk Assessment

Risk of Procedure/Task

Glove Material

Glove Class

Low Risk - Where disposable gloves are worn to keep hands clean or reduce contact between the wearer and item(s) handled.

Co-Polymer
Vinyl
Synthetic
Latex

Industrial PPE - "minimal risk"
or
EU EN455 medical standard.

Medium Risk - Where gloves are being worn as task is deemed to pose a medium risk i.e. staining to the hand, minor chemical burns, allergic reactions or cross contamination between user and test subject.

Vinyl
Latex
Nitrile

Industrial PPE - "Class I"
or
EU EN455 medical standard
watertight test value <AQL 1.5.

High Risk - Where gloves are worn as the potential of serious health issues through exposure to biohazard or chemicals are likely.

Latex
Nitrile
Specialist i.e Neoprene

Industrial PPE - "Class III"
or
EU EN455 medical standard
watertight test value <AQL 0.65
with high force at break value
of >9 Newtons.

Glove Materials Explained

Disposable gloves are made from a variety of different materials, all designed to fulfil a specific purpose or purposes:

Co-Polymer (Plastic):

Advantages:

- They are cheap in price.
- Fine for simple protection to keep hands clean.

Disadvantages:

- Offer little practical protection.
- Very loose fitting and very smooth - makes handling implements and carrying out tasks/procedures difficult.

Vinyl:

Advantages:

- A cost-effective alternative to latex for glove wearers who are allergic to soluble proteins or residual chemicals in NRL gloves (low risk procedures only).

Disadvantages:

- Not a good barrier material against blood-borne pathogens or chemicals.
- Vinyl is more susceptible to pin holing than either latex or Nitrile.
- Vinyl material is more 'friable' and can degenerate whilst being worn when in contact with rough surfaces on instruments or items being handled in the procedure or task.
- Vinyl material can cause hand fatigue when worn for long periods of time.

Latex - Natural Rubber Latex (NRL):

Advantages:

- Effective barrier against most substances including blood-borne pathogens.
- The material is very thin allowing a high degree of sensitivity.
- The material is very strong and flexible.
- The material's molecular structure reduces the incidence of pinholing or tearing when carrying out procedures/tasks.
- As the material comes from a natural renewable source (rubber trees) it is 'environmentally friendly'.
- The material is cost effective.

Disadvantages:

- Residual soluble proteins in NRL can cause allergic reactions in some glove users.
- As a natural material NRL is not generally a good barrier against chemicals.

Nitrile:

Advantages:

- Nitrile contains no residual protein and is a good alternative to latex for glove wearers who are allergic to the soluble proteins in latex.
- An effective barrier against most substances including blood-borne pathogens.
- Is in general a better barrier against chemicals than NRL.

Disadvantages:

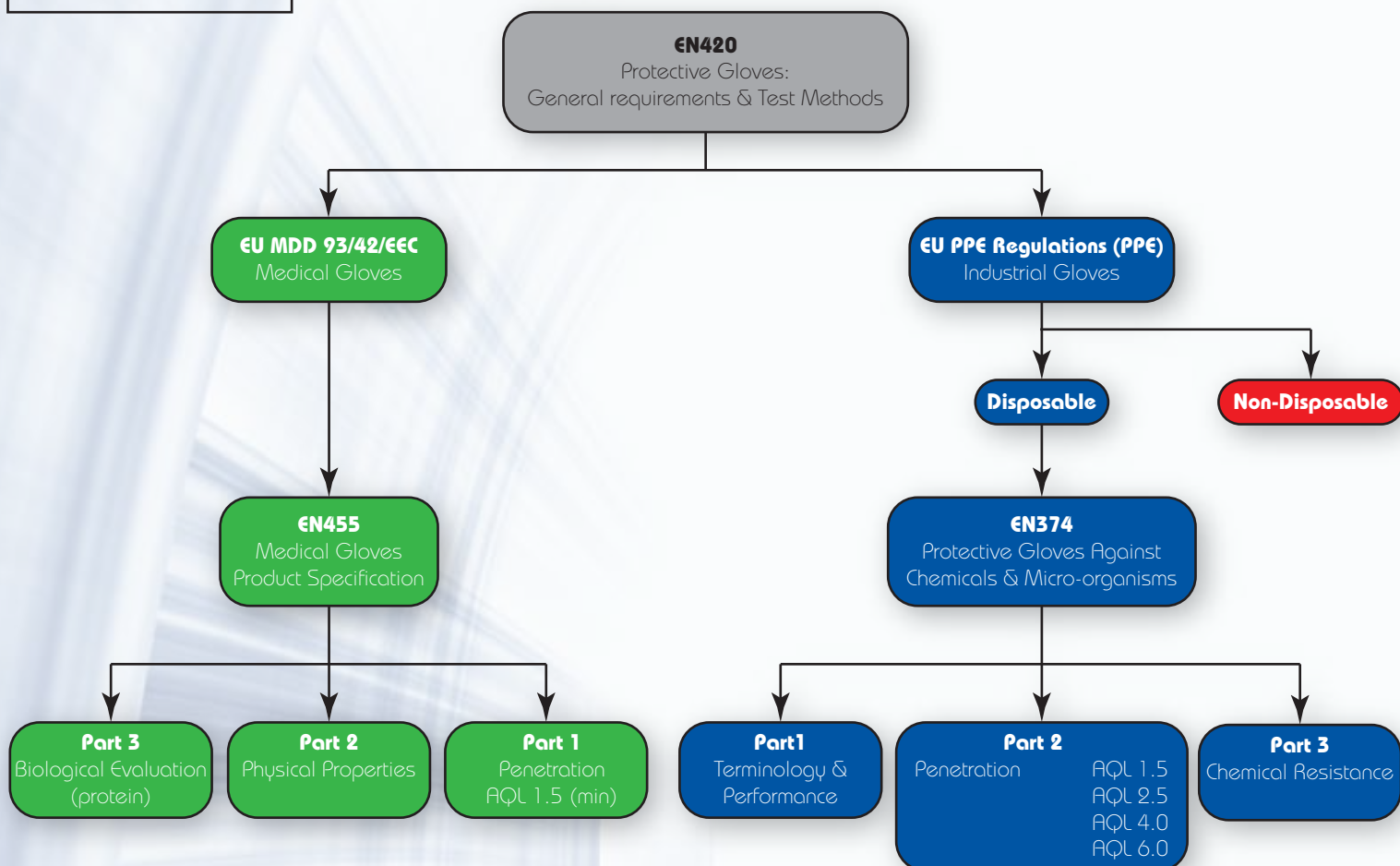
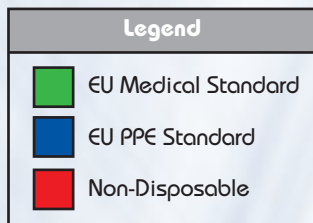
- It is not as flexible as latex, which can cause hand fatigue in glove users who need to wear glove for long periods of time.
- It is more expensive than latex but is still a cost effective barrier material.

Please Note:

1) Double Donning: Extra protection can be gained through the technique of double donning two disposable gloves, where one glove is worn over another.

2) In using gloves, the use of non-disposable gloves should not be ruled out where risk is considered too great for disposable gloves to be worn. In such cases, a loss of sensitivity and dexterity will occur.

Disposable gloves quality standards



Notes Regarding EN374 & EN388 Quality Standards



Where this EU Pictogram is used, it should be used in conjunction with an alpha code and a value from 0-6 where 0 = "Do not use" to 6 = "Excellent for purpose". Where the pictogram is shown without both alpha and numeric codes present do not accept the use of this pictogram as acceptable proof of compliance to EN374.

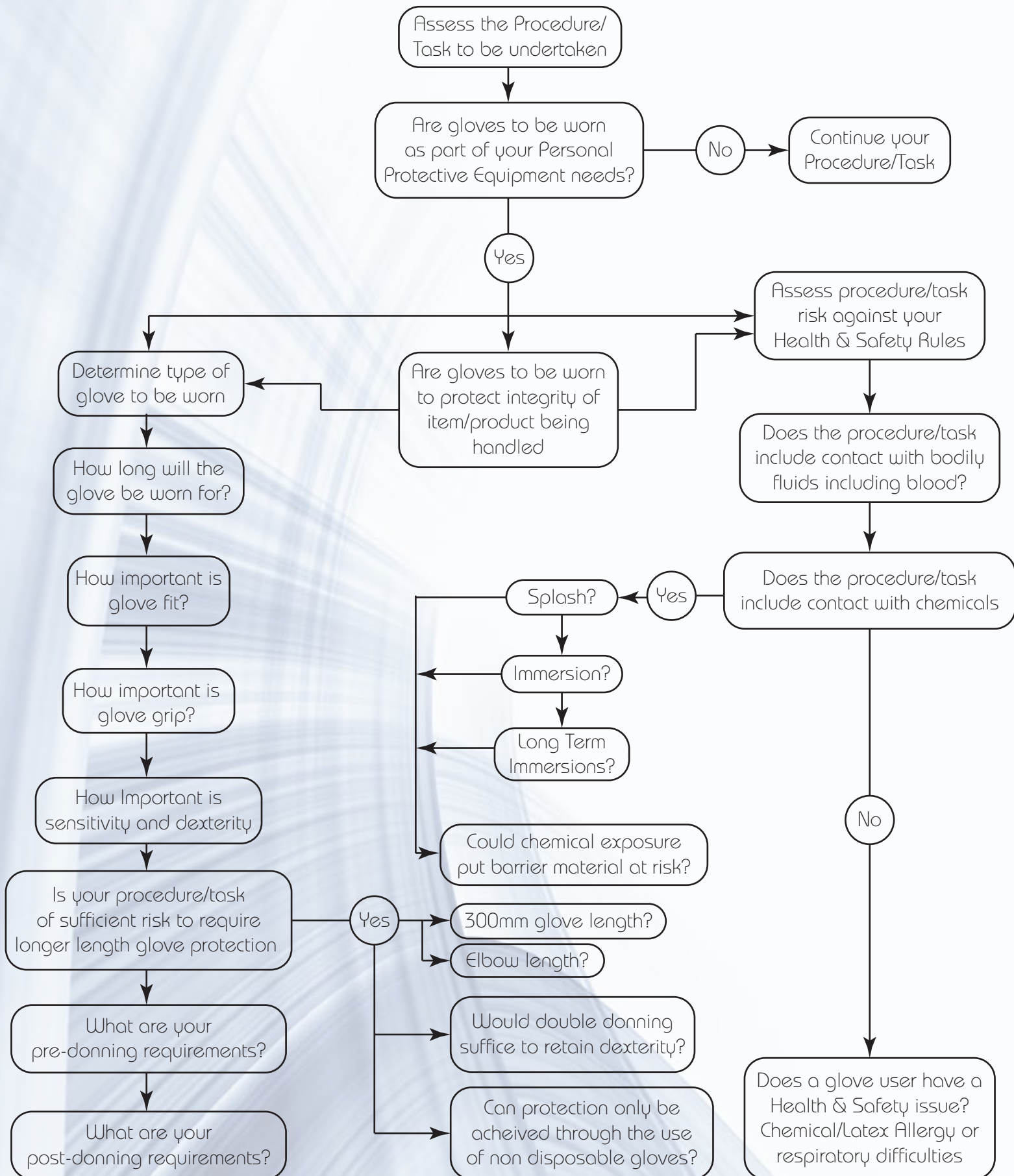


A chemical beaker with the '?' symbol shows the product being of use with general chemicals but once again, further information should be sought to ensure that the glove material is safe for use with the chemical concentration you intend to use or could be exposed to during the task/procedure.

The above mentioned EU specifications are those which we feel are particularly relevant in assessing the use of a particular glove material as giving adequate protection as a disposable PPE item. Whilst some disposable glove manufacturers include the pictogram for EN388:2003 Protective Gloves against Mechanical Risk, we would caution the credibility of such action as it is unlikely that disposable glove material at the standard thickness would pass any of the tests required under EN388:2003.

Disposable Glove - Things To Consider

There are many aspects to consider when deciding whether a glove should be worn and if so, what type of glove should be considered. Use this chart to assist you in determining which, if any, glove should be considered for the procedure/task to be carried out.



For details of glove material limitations [Click Here](#)

Glove Users Well Being

Gloves, correctly used, can provide the ideal protection against a wide range of potentially hazardous substances and are an essential part of the PPE requirements of many institutions and businesses.

It is essential however, that the glove user takes the correct precautions both before and after the use of gloves to ensure damage to the skin through prolonged use of gloves is prevented.

To ensure the well-being of the glove user, it is important to consider the following:

Pre-Donning Procedure:

- Wash your hands - are there adequate hand washing facilities available?
- Hand Lotions/Barrier Creams to protect the skin - Ensure any hand lotions/barrier creams do not contain Coconut Oil, Jojoba, Lanolin, Palm Oil, Vaseline/Petroleum Jelly or any other petroleum based product as these can damage the barrier properties of certain gloves.

Post-Donning Procedure:

- Are there adequate glove disposal facilities available?
- Are there adequate hand washing facilities available?
- Does the glove user require post use hand creams or lotions?

Glove Storage and Barrier Protection

Even the best gloves can fail to perform correctly if you do not adhere to good user practice!

- You should store disposable gloves away from direct sunlight and excessive heat. Never place gloves on a window ledge or on a shelf above a radiator. If you are storing gloves on racking, consider the temperature at ceiling height. Never store gloves at temperatures exceeding 40°C.
- Glove boxes should not be left open in direct sunlight or near fluorescent light sources as this will accelerate the ageing process.
- You should not wear hand creams or lotions containing any of the following materials or the barrier integrity may be affected: Coconut Oil, Jojoba, Lanolin, Palm Oil, Vaseline/Petroleum Jelly or any other petroleum based product.

Note: Water or glycerine based lotions or creams will not compromise the glove barrier.

- You should not wear rings or jewellery with projections whilst wearing disposable gloves as such items can puncture the glove barrier.
- Sharp or long fingernails can puncture the glove barrier, check that your fingernails are rounded and smooth before donning a glove.