

Overview of mask types



Masks are a vital and necessary tool in our pandemic response. There are various types of masks that differ greatly in their specifications as well as in their intended purpose. According to the Federal Office of Public Health (FOPH), a distinction can be made between four types of masks in general:


- Medical face masks (also known as hygiene masks, surgical masks or protective masks)
- Respiratory masks (filtering face piece/(FFP) masks)
- Community masks (industrially manufactured textile masks)
- Other mouth and nose coverings (DIY masks, bandanas, etc.)


Hygiene masks and community masks are primarily aimed at providing what is known as source control. That is, they are designed to prevent infected carriers from spreading particles that contain viruses. Respiratory masks classified as FFP2 and FFP3 also protect the wearers themselves from aerosols to a certain degree. **No matter what type of mask is worn, it is important to remember that they must be worn correctly to be effective.**

Overview of the four different types of masks:

Medical face masks	
Synonyms	Surgical masks, protective masks, hygiene masks
Product type	Medical device (risk class 1)
Function	Protecting third parties/source control
Scope of application	Everyday life and healthcare
Market monitoring	Swissmedic
Subtypes	<p>Type I Filter performance: $\geq 95\%$ (bacterial) Splash protection: No</p> <p>Type II Filter performance: $\geq 98\%$ (bacterial) Splash protection: No</p> <p>Type IIR (R stands for splash protection) Filter performance: $\geq 98\%$ (bacterial) Splash protection: Yes</p>
Legal requirements	<p>Swiss Ordinance of 17 October 2001 on Medical Devices (MedDO; <i>Medizinprodukteverordnung vom 17. Oktober 2001 – MepV</i>; SR 812.213)</p> <p>EU Medical Device Directive (Council Directive 93/42/EEC of 14 June 1993)</p> <p>EU MD Regulation (Regulation (EU) 2017/745 of 5 April 2017)</p>
CE labelling	Yes
Standards	SN EN 14683+AC:2020
Other standards documents	None
Multi-use	No, this is a disposable product
Protection of wearer	No
Protection of third parties	Yes
Comments	A hygiene mask should be worn in case of symptoms that indicate acute respiratory disease.



Community masks		
Synonyms	Industrially manufactured textile mask, fabric mask, barrier mask	
Product type	Consumer good	
Function	Protecting third parties/source control	
Scope of application	Everyday life	
Market monitoring	None	
Subtypes	–	
Legal requirements	<p>Swiss Federal Act of 20 June 2014 on Foodstuffs and Utility Articles (FoodA; <i>Bundesgesetz vom 20. Juni 2014 über Lebensmittel und Gebrauchsgegenstände – LMG</i>; SR 817.0); or</p> <p>Swiss Federal Act of 12 June 2009 on Product Safety (ProdSA; <i>Bundesgesetz vom 12. Juni 2009 über die Produktesicherheit – PrSG</i>; SR 930.11)</p>	
CE labelling	No	
Standards	None	
Other standards documents	SNR 30000, CEN Workshop Agreement (CWA 17553)	
Multi-use	Yes, if specified by the manufacturer	
Protection of wearer	No	
Protection of third parties	Yes, if they meet the requirements of SNR 30000 or the recommendations of the task force.	

Respiratory masks	
	
Synonyms	Filtering face piece (FFP)
Product type	Personal protective equipment
Function	Protection of wearer/occupational safety and third-party protection/source control (if no valve is present)
Scope of application	Occupational safety and risk groups
Market monitoring	State Secretariat for Economic Affairs (SECO), subcontracted to the Swiss National Accident Insurance Fund (Suva) and Swiss Council for Accident Prevention (BFU)
Subtypes	FFP 1* Filter performance: >80% (aerosol)
	FFP 2* Filter performance: ≥94% (aerosol)
	FFP 3* Filter performance: ≥99 % (aerosol)
	* Can be with or without valve.
Legal requirements	Swiss Ordinance of 25 October 2017 on the Safety of Personal Protective Equipment (PPEO; <i>Verordnung vom 25. Oktober 2017 über die Sicherheit von persönlichen Schutzausrüstungen – PSAV</i> ; SR 930.115) EU PPE Regulation (Regulation (EU) 2016/425 of 9 March 2016)
CE labelling	Yes, CE labelling with four-digit identification number of the conformity assessment body
Standards	SN EN 149 +A1:2009
Other standards documents	None
Multi-use	No, this is a disposable product
Protection of wearer	Yes, from solid and liquid particles and aerosols
Protection of third parties	Yes, if no valve is present
Comments	Infected people, with or without symptoms of the disease, should not wear respiratory masks with valves, as they do not filter exhaled air and can thus contribute to the spread of viruses.

More mouth and nose coverings



Synonyms	DIY masks, home-made masks, bandanas
Product type	Consumer good
Function	Unknown (no requirements defined)
Scope of application	Everyday life
Market monitoring	None
Legal requirements	Swiss Federal Act of 20 June 2014 on Foodstuffs and Utility Articles (FoodA; <i>Bundesgesetz vom 20. Juni 2014 über Lebensmittel und Gebrauchsgegenstände – LMG</i> ; SR 817.0); or Swiss Federal Act of 12 June 2009 on Product Safety (ProdSA; <i>Bundesgesetz vom 12. Juni 2009 über die Produktesicherheit – PrSG</i> ; SR 930.11)
CE labelling	None
Standards	None
Other standards documents	None
Multi-use	Specified by the manufacturer
Protection of wearer	No
Protection of third parties	Unknown

Overview of standards documents and task force recommendations on community masks

	SNR 30000	Swiss National COVID-19 Science Task Force Recommendation Paper	CWA 17553
Requirement criterion			
Splash/drip resistance	Yes	Yes	No
Filtration efficiency	≥70% with a particle size of 1 µm	≥70% with a particle size of 1 µm	Two filtration levels ≥90% ≥70% With a particle size of 3 (±0.5) µm
Breathing resistance	<60 Pa/cm ²	<60 Pa/cm ²	≤70 Pa/cm ²
Reusability	After the minimum number of permitted cleaning procedures specified by the manufacturer, the community mask must continue to meet the basic requirements of SNR 30000.	Can be washed more than five times at 60 degrees Celsius using commercially available detergent.	It must be possible to wash reusable community masks at least five times at 60 degrees Celsius.

Sources:

- www.bag.admin.ch/bag/en/home/krankheiten/ausbrueche-epidemien-pandemien/aktuelle-ausbrueche-epidemien/novel-cov/masken.html; as of 14.01.2021
- Clarification on face mask types, architecture, quality, handling, test and certification procedures, 24.09.2020; Swiss National COVID-19 Science Task Force (NCS-TF)
- Swiss rule (SNR) 30000:2021