

Respirators, Disposable, KN95



1. Scope

This standard covers the requirements for KN95 disposable respirators.

This standard applies to Seattle City Light (SCL) Stock No. 014636.

2. Application

KN95 respirators are designed to protect the wearer from inhaling particulate matter.

KN95 respirators are designed to help provide reliable respiratory protection of at least 95 percent filtration efficiency against certain non-oil-based particles. Respirators are designed for use for particles such as those generated from grinding, sanding, sweeping, sawing, bagging, and other operations that create dust.

3. Industry Standards

Respirators shall meet the applicable requirements of the latest revision of the following industry standard:

GB 2626 Respiratory Protection - Non-Powered Air-Purifying Particle Respirator,
People's Republic of China, 2019

4. Requirements

Respirators shall have the following attributes:

- Performance test values as shown in Table 4
- Adjustable nose clip
- 4 or 5-ply layers, non-woven design
- Elastic, over-the-head, dual head straps
- Ability to create a tight seal around the mouth and nose

Standards Coordinator
Quan Wang

Standards Supervisor
John Shipek

Unit Director
Andrew Strong

Table 4. Respirator Performance Test Values

Certification/ Class (Standard)	KN95 Respirator Performance Test Values
Filter performance – (must be \geq X% efficient) (Particle size: 0.3 microns)	\geq 95%
Flow rate	85 L/min
Total inward leakage (TIL) – tested on human subjects performing exercises	\leq 8% leakage (arithmetic mean)
Inhalation resistance – maximum pressure drop	\leq 350 Pa
Exhalation resistance – maximum pressure drop	\leq 250 Pa
Exhalation valve leakage requirement	Depressurization n to 0 Pa \geq 20 sec
Force applied	-1180 Pa
CO2 clearance requirement	\leq 1%

5. Marking

Respirators shall be legibly marked with the following.

- Manufacturer name or trademark
- Model and part number (if applicable)
- Standard number and Filter media level, such as GB 2626-2006 KN95

6. Packaging

Product shall be packaged to prevent damage and/or contamination during shipping, handling, and storage.

Each standard package shall be legibly marked with the following information:

- Manufacturer identification
- Product description
- Manufacturer catalog number
- Quantity
- Country of origin

Each shipping container shall be legibly marked with the following information:

- Seattle City Light purchase order number

7. Issuance

Stock unit: EA

8. Approved Manufacturers

Manufacturer	Catalog No.	Pkg. Quantity
BYD Precision Manufacture Company. Ltd.	DG3101	–
Guangzhou Harley Commodity Company Limited	L-103V KN95	10/pack
Guangzhou Powecom Labor Insurance Supplies Co., Ltd.	KN95	10/pack
Rizhao Sanqi Medical & Health Articles Co., Ltd.	3Q KN95– 9505	10/pack

9. Sources

3M, Science Applied to Life, Technical Bulletin, Comparison of FFP2, KN95, N95, and Other Filtering Facepiece Respirator Classes, Revision 3 (Ma, 2020)

FDA, Non-NIOSH-Approved Disposable Filtering Facepiece Respirators Manufactured in China - Appendix A: Authorized Respirators, (May 07, 2020)

SCL Material Standard 4009.15; Safety, Respiratory Protection Systems

Seattle City Light Mask Options Flyer; May 2020

Seattle City Light, COVID-19 Pandemic Facemask Frequently Asked Questions,
April 13, 2020

Wang, Quan; SCL Standards Engineer, originator, and subject matter expert for 4009.42
(quan.wang@seattle.gov)

www.CDC.gov

www.fda.gov