

Comparison of Filtration Efficiency between GB 2626-2006 and Similar Foreign Standards

Country	Standard NO.	Filtration efficiency				
China	GB 2626-2006	KN Nacl	KN90≥90%	KN95≥95%	KN100≥99.97%	
		KP paraffin oil	KP90≥90%	KP95≥95%	KP100≥99.97%	
USA	NIOSH42 CFR84 Subpart K	N Nacl	——	N95≥95%	N99≥99%	N100≥99.97%
		P paraffin oil	——	P95≥95%	P99≥99%	P100≥99.97%
EU	EN 149:2001+ A1:2009	Nacl and paraffin oil	FFP1≥80%	FFP2≥94%	FFP3≥99%	
Australia	AS/NZS 1716:2012	Nacl	P1≥80%	P2≥94%	——	
Brazil	ABNT NBR 13698-2011	Nacl and paraffin oil	PFF1≥80%	PFF2≥94%	PFF3≥99%	
Japan	JIS T8151-2018	DS Nacl	DS1≥80%	DS2≥95%	DS3≥99.9%	
		DL paraffin oil	DL1≥80%	DL2≥95%	DL3≥99.9%	
Korea	KMOEL-2017-64	Nacl and paraffin oil	Class 2≥80%	Class 1≥94%	Special class≥99%	
Mexico	NOM-116-STPS-2009	N Nacl	N90≥90%	N95≥95%	N100≥99.97%	
		P paraffin oil	P90≥90%	P95≥95%	P100≥99.97%	
Differences analysis	In terms of filtration efficiency, the performance requirements of GB, JIS, NIOSH and NOM standards are basically the same; the requirements of EN, ABNT and KMOEL standards are basically the same; the requirements of AS and EN standard are similar.					

Comparison of Breathing Resistance between GB 2626-2006 and Similar Foreign Standards

Country	Standard NO.	Inhalation Resistance			Exhalation Resistance		
China	GB 2626-2006	Inhalation Resistance \leq 350Pa			Exhalation Resistance \leq 250Pa		
USA	NIOSH42 CFR84 Subpart K	Inhalation Resistance \leq 350Pa			Exhalation Resistance \leq 250Pa		
EU	EN 149:2001+ A1:2009	FFP1 \leq 210Pa	FFP2 \leq 240Pa	FFP3 \leq 300Pa	Exhalation Resistance \leq 300Pa		
Australia	AS/NZS 1716:2012	P1 \leq 210Pa	P2 \leq 240Pa	—	Exhalation Resistance \leq 120Pa		
Brazil	ABNT NBR 13698-2011	PFF1 \leq 210Pa	PFF2 \leq 240Pa	PFF3 \leq 300Pa	Exhalation Resistance \leq 300Pa		
Japan	JIS T8151-2018	with valve			with valve		
		DL1, DS1 \leq 60Pa	DL2, DS2 \leq 70Pa	DL3, DS3 \leq 150Pa	DL1, DS1 \leq 60Pa	DL2, DS2 \leq 70Pa	DL3, DS3 \leq 80Pa
		without valve			without valve		
		DL1, DS1 \leq 45Pa	DL2, DS2 \leq 50Pa	DL3, DS3 \leq 100Pa	DL1, DS1 \leq 45Pa	DL2, DS2 \leq 50Pa	DL3, DS3 \leq 100Pa
Korea	KMOEL-2017-64	Class 2 \leq 210Pa	Class 1 \leq 240Pa	Special class \leq 300Pa	Exhalation Resistance \leq 300Pa		
Mexico	NOM-116-STPS-2009	Inhalation Resistance \leq 343Pa			Exhalation Resistance \leq 245Pa		
Differences analysis	In terms of the breathing resistance, the performance requirements of GB, NIOSH and NOM standards are basically the same; the requirements of EN, ABNT and KMOEL standards are basically the same; the requirements of AS and EN standard are similar; JIS standard is relatively independent.						

Comparison of Inward Leakage between GB 2626-2006 and Similar Foreign Standards

Country	Standard NO.	Inward leakage		
China	GB 2626-2006	Total inward leakage	At least 46 out of the 50 individual exercise results for the total inward leakage	At least 8 out of 10 the individual wearer means for the total inward leakage
		KN90/KP90	$\leq 25\%$	$\leq 22\%$
		KN95/KP95	$\leq 11\%$	$\leq 8\%$
		KN100/KP100	$\leq 5\%$	$\leq 2\%$
USA	NIOSH42 CFR84 Subpart K	There is no quantitative test requirement for inward leakage in 42CFR84, but in the U.S. PPE standard-29 CFR 1910.134, it is mandatory to evaluate the fit of respirator before use. Different from the GB and EN standard, the test is required to be carried out by the wearer, and the quantitative test or qualitative test accepted by NIOSH can be conducted. The quantitative test is similar to the GB standard test.		
EU	EN 149:2001+ A1:2009	Total inward leakage	At least 46 out of the 50 individual exercise results for the total inward	At least 8 out of 10 the individual wearer means for the total inward leakage
		FFP1	$\leq 25\%$	$\leq 22\%$
		FFP2	$\leq 11\%$	$\leq 8\%$
		FFP3	$\leq 5\%$	$\leq 2\%$
Australia	AS/NZS 1716:2012	Total inward leakage	Average results of 50 individual exercise	Single test result of the all individual exercise
		P1	$\leq 22\%$	$\leq 22\%$
		P2	$\leq 8\%$	$\leq 8\%$
Brazil	ABNT NBR 13698-2011	None		
Japan	JIS T8151-2018	According to the testing method specified in JIS T8159, it's required in JIS T 8150 that the fitness factor (the reciprocal of the total inward leakage) of the half-face masks is more than 10, i.e. the total inward		

Country	Standard NO.	Inward leakage		
		leakage is required to be lower than 10%.		
Korea	KMOEL-2017-64	Class 2 < 25%	Class 1 < 11%	Special class < 5%
Mexico	NOM-116-STPS-2009	None		
Differences analysis	<p>The performance requirements of GB, AS and KMOEL standards are basically the same; the performance requirement of GB standard is similar to JIS standard; It's no required to conduct quantitative test for products in NIOSH, ABNT and NOM standards; USA requires the user to conduct a fit assessment before use in other specifications.</p>			