










10A – EXCEEDS ALL INTERNATIONAL STANDARDS

 ISO 14644 Clean room Standard		Exceeds and outperforms all standard requirements of KN95, ASTM F2100, N95 and Surgical N95				EN 14683 Type IIR + EN 149 FFP2 NR DUAL CERTIFIED					
		 China	 USA		 Europe		 ⁽¹⁾WHO Preferred	 Hong Kong			
Certificates / Performance		GB 2626 KN95	ASTM F2100 (Level 1, 2 & 3)	NIOSH N95	NIOSH Surgical N95	EN 14683 Type IIR	EN 149 FFP2 NR	EN 14683 Type IIR + EN 149 FFP2 NR	N/A	10A Lotus	RB Pro
Filtration	NaCl	≥95%	-	≥95%	≥95%	-	≥94%	≥94%		≥99%	
	Paraffin oil	≥95%	-	-	-	-	≥94%	≥94%		≥98%	
	BFE	≥95%	≥95% (Level 1) ≥98% (Level 2, 3)	-	≥98%	≥98%	-	≥98%		99.9%	
	PFE	≥80%	≥95% (Level 1) ≥98% (Level 2, 3)	-	≥98%	-	-	-		≥99%	
Breathability	Breathing resistance (inhalation)	≤ 210Pa	-	≤ 343Pa or 3.43mbar (@ 85L/min)	≤ 343Pa or 3.43mbar (@ 85L/min)	-	≤ 70Pa or 0.7mbar(@30L/min) ≤ 240Pa or 2.4mbar(@95L/min) ≤ 500Pa or 5.0mbar(clogging)	≤ 70Pa or 0.7mbar(@30L/min) ≤ 240Pa or 2.4mbar(@95L/min) ≤ 500Pa or 5.0mbar(clogging)		≤ 0.5mbar(@30L/min) ≤ 1.6mbar(@95L/min) (clogging) - N/A for single use mask	
	Breathing resistance (exhalation)	≤ 245Pa	-	≤ 245Pa (@85L/min)	≤ 245Pa (@85L/min)	-	≤ 300Pa or 3.0mbar(@160L/min)	≤ 300Pa or 3.0mbar(@160L/min)		≤2.1mbar(@160L/min)	
	Pressure drop (ΔP)	-	< 49 Pa/cm ² (Level 1) < 58.8 Pa/cm ² (Level 2,3)	-	< 58.8 Pa/cm ² (ASTM)	< 60 Pa/cm ²	-	< 60 Pa/cm ²		38 – 60 Pa/cm ²	
Fit test	Required	-	-	-	-	Required	Required		PASSED		
Total inward leakage	≤ 8% leakage	-	-	-	-	≤ 8% leakage	≤ 8% leakage		≤ 5% leakage		
CO ₂ of inhalation air	-	-	-	-	-	≤ 1%	≤ 1%		0.56%		
Synthetic blood penetration Fluid resistant = surgical	-	80 mmHg / 10.7 kPa (Level 1) 120 mmHg / 16 kPa (Level 2) 160 mmHg / 21.4 kPa (Level 3)	-	120mmHg / 16kPa (ISO 22609) (≥29/32 passing masks)	120mmHg / 16kPa (ISO 22609) (≥29/32 passing masks)	-	120mmHg / 16kPa (ISO 22609) (≥29/32 passing masks)		120mmHg / 16kPa (ISO 22609) (32/32 passing masks)		
Microbial cleanliness (ISO 11737-1)	-	-	-	-	≤30 cfu/g	-	≤30 cfu/g		6.4 – 20 cfu/g (UV disinfection)		
Biocompatibility (ISO 10993)	-	Recommended	-	Recommended	Required	-	Required		✓		
Filter Layer – Antiviral (ISO 18184)	-	-	-	-	-	-	-		✓	-	
Filter Layer - Antibacterial (ISO 20743)	-	-	-	-	-	-	-		✓	-	

*Hong Kong follows other countries or organizations such as USA/EU/WHO for respirators guidelines and requirements.

⁽¹⁾WHO Preferred Standards: EN 14683 Type IIR + EN 149 FFP2 NR dual certification, NIOSH Surgical N95, GB 19083 Level 1

