



### ISO 14644-1 Cleanroom Standard

Class	maximum particles/m <sup>3</sup>						FED STD 209E equivalent
	≥0.1 μm	≥0.2 μm	≥0.3 μm	≥0.5 μm	≥1 μm	≥5 μm	
ISO 1	10	2					
ISO 2	100	24	10	4			
ISO 3	1,000	237	102	35	8		Class 1
ISO 4	10,000	2,370	1,020	352	83		Class 10
ISO 5	100,000	23,700	10,200	3,520	832	29	Class 100
ISO 6	1,000,000	237,000	102,000	35,200	8,320	293	Class 1000
ISO 7				352,000	83,200	2,930	Class 10,000
ISO 8				3,520,000	832,000	29,300	Class 100,000
ISO 9				35,200,000	8,320,000	293,000	Room air

### US FED STD 209E Cleanroom Standard

Class	maximum particles/ft <sup>3</sup>						ISO 14644-1 equivalent
	≥0.1 μm	≥0.2 μm	≥0.3 μm	≥0.5 μm	≥1 μm	≥5 μm	
1	35	7	3	1			ISO 3
10	350	75	30	10			ISO 4
100		750	300	100			ISO 5
1,000				1,000		7	ISO 6
10,000				10,000		70	ISO 7
100,000				100,000		700	ISO 8

US FED STD 209E was officially canceled by the General Services Administration of the US Department of Commerce November 29, 2001, but is still widely used.

### EU Guidelines to Good Manufacturing Practice: Annex 1

Grade	maximum particles/m <sup>3</sup>			Grade	maximum particles/m <sup>3</sup>		
	14644-1 equivalent				14644-1 equivalent		
	At Rest		ISO		In Operation		ISO
≥0.5μm	≥5.0μm	≥0.5μm		≥5.0μm			
A	3,520	<b>20</b>	5 ( <b>4.8</b> )	A	3,520	<b>20</b>	5 ( <b>4.8</b> )
B	3,520	29	5	B	352,000	2,900	7
C	352,000	2,900	7	C	3,520,000	29,000	8
D	3,520,000	29,000	8				

Note: Particle Classifications are NOT Exactly per ISO 14644-1, difference noted **BOLD**

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