

<u>General</u>

__Federal Specification 209E establishes alternate classifications of cleanliness as well as the four standard classifications 100, 1,000, 10,000, and 100,000 from 209C. Additionally these levels are addressed in metric "SI" and English. Listed below is a table summary from Federal Standard 209E, September 11, 1992.

	Class Limits (not to exceed)								
0.1 <i>µ</i> m		0.2 <i>µ</i> m		0.3 <i>µ</i> m		0.4 <i>µ</i> m		0.5 <i>µ</i> m	
Volume Units		Volume Units		Volume Units		Volume Units		Volume Units	
(m ³)	(ft^3)	(m ³)	(ft^3)	(m ³)	(ft^3)	· · · ·	. ,	(m ³)	(ft^3)
350	9.91	75.7	2.14	30.9	0.875	10	0.283	-	
1,240	35	265	7.5	106	3	35.3	1		
3,500	99.1	757	21.4	309	8.75	100	2.83		
12,400	350	2,650	75	1,060	30	353	10		
35,000	991	7,570	214	3,090	87.5	1,000	28.3		
		26,500	750	10,600	300	3,530	100		
		75,700	2,140	30,900	875	10,000	283		
						35,300	1,000	247	7
						100,000	2,830	618	17.5
						353,000	10,000	2,470	70
						1,000,000	28,300	6180	175
						3,530,000	100,000	24,700	700
					1	0,000,000	283,000	61,800	1750
	Volume (m ³) 350 1,240 3,500 12,400	Volume Units (m³) (ft³) 350 9.91 1,240 35 3,500 99.1 12,400 350	Volume Units Volume (m³) (ft³) (m³) 350 9.91 75.7 1,240 35 265 3,500 99.1 757 12,400 350 2,650 35,000 991 7,570 26,500 26,500 26,500	Volume Units Volume Units (m³) (ft³) (m³) (ft³) 350 9.91 75.7 2.14 1,240 35 265 7.5 3,500 99.1 75.7 21.4 12,400 350 2,650 75 35,000 991 7,570 214 26,500 750 750 750	Volume Units Volume Units Volume (m³) (ft³) (m³) (ft³) (m³) 350 9.91 75.7 2.14 30.9 1,240 35 265 7.5 106 3,500 99.1 757 21.4 309 12,400 350 2,650 75 1,060 35,000 991 7,570 214 3,090 26,500 750 10,600 10,600	Volume Units Volume Units Volume Units (m^3) (ft^3) (m^3) (ft^3) (m^3) (ft^3) 350 9.91 75.7 2.14 30.9 0.875 1,240 35 265 7.5 106 3 3,500 99.1 75.7 21.4 30.9 8.75 12,400 350 2,650 75 1,060 30 35,000 99.1 7,570 214 3,090 87.5 26,500 750 10,600 300 75,700 2,140 30,900 875	Volume Units (m³) (ft³) (ft³) <th(ft)< th=""> (ft³) <th(ft)< td="" th<=""><td>Volume Units Volume Units Volume Units Volume Units Volume Units (m^3) (ft^3) (m^3) (ft^3) (m^3) (ft^3) (m^3) (ft^3) 350 9.91 75.7 2.14 30.9 0.875 10 0.283 $1,240$ 35 265 7.5 106 3 35.3 1 $3,500$ 99.1 757 21.4 309 8.75 100 2.83 $12,400$ 350 $2,650$ 75 $1,060$ 30 353 10 $35,000$ 991 $7,570$ 214 $3,090$ 87.5 $1,000$ 28.3 $26,500$ 750 $10,600$ 300 $3,530$ 100 $75,700$ $2,140$ $30,900$ 875 $10,000$ 28.3 $100,000$ $2,830$ $353,000$ $10,000$ $28,300$ $3,530,000$ $100,000$ $3,530,000$ $100,000$ $3,530,000$<</td><td>Volume Units Volume Units (ft³) <t< td=""></t<></td></th(ft)<></th(ft)<>	Volume Units Volume Units Volume Units Volume Units Volume Units (m^3) (ft^3) (m^3) (ft^3) (m^3) (ft^3) (m^3) (ft^3) 350 9.91 75.7 2.14 30.9 0.875 10 0.283 $1,240$ 35 265 7.5 106 3 35.3 1 $3,500$ 99.1 757 21.4 309 8.75 100 2.83 $12,400$ 350 $2,650$ 75 $1,060$ 30 353 10 $35,000$ 991 $7,570$ 214 $3,090$ 87.5 $1,000$ 28.3 $26,500$ 750 $10,600$ 300 $3,530$ 100 $75,700$ $2,140$ $30,900$ 875 $10,000$ 28.3 $100,000$ $2,830$ $353,000$ $10,000$ $28,300$ $3,530,000$ $100,000$ $3,530,000$ $100,000$ $3,530,000$ <	Volume Units (ft³) (ft³) <t< td=""></t<>

Federal Standard 209E

Example:

Class M 2.5 (@ 0.3 μ m & 0.5 μ m) describes air with not more than 1060 particulates/m³ of a size 0.3 μ m and larger, nor more than 353 particulates/m³ of a size 0.5 μ m and larger.

Class 100 @ 0.5 μ m describes air not more than 100 particles/ft³ of a size 0.5 μ m and larger.

Note:

For Reference Purposes please note that The Federal Standard 209E has been replaced by the ISO 14644 Standards. The ISO Cleanroom Classes are similiar to The Federal Standard 209E Classes.