

MAKING SENSE OUT OF ISO PARTICLE COUNTS

ISO 4406:99 R₄/R₆/R₁₄

INSIGHT Particle Count	
Size (micron)	Particles
>4	3471
>6	1198
>14	107
>25	8
>50	2
>100	0

There are 3471 particles greater than 4 micron. Where does it fit?

There are 1198 particles greater than 6 micron. Where does it fit?

There are 107 particles greater than 14 micron. Where does it fit?

= ISO 19/17/14

Number of Particles per ml		
More than	Up to	Range Number (R)
80,000	160,000	24
40,000	80,000	23
20,000	40,000	22
10,000	20,000	21
5,000	10,000	20
2,500	5,000	19
1,300	2,500	18
640	1,300	17
320	640	16
160	320	15
80	160	14
40	80	13
20	40	12
10	20	11
5	10	10
2.5	5	9
1.3	2.5	8
0.64	1.3	7
0.32	0.64	6
0.16	0.32	5
0.08	0.16	4
0.04	0.08	3
0.02	0.04	2
0.01	0.01	1

WHAT DOES IT MEAN???

Using ISO 4406:99, a sample is assigned a cleanliness rating using the chart on the right. To arrive at the rating Insight performs a particle count to determine the number of particles greater than three size ranges (4,6,and 14 microns) in one milliliter of sample. The chart on the left depicts the actual particles of one of our particle count tests. This particle distribution translates to an ISO 4406:99 rating of 19/17/14.