

# ISO Cleanliness Codes Explained

ISO cleanliness codes are based on International Standard ISO 4406:99. ISO codes show three sets of numbers separated by a slash. These numbers refer to ranges depicting the number of particles larger than 4 micron, 6 micron and 14 micron respectively.

Because 6 micron and 14 micron particles are both larger than 4 micron those particles are all also included in the first number. The second number shows particles larger than 6 microns. The last number only shows particles larger than 14 microns.

The table indicates the number of particles in 100ml of fluid that is specified against each number in the range.

## ISO 4406 Cleanliness Standards

(number of particles per 100 mL)\*

Range no.	More than	Up to and including
24	8,000,000	18,000,000
23	4,000,000	8,000,000
<b>22</b>	2,000,000	4,000,000
21	1,000,000	2,000,000
<b>20</b>	500,000	1,000,000
19	250,000	500,000
<b>18</b>	130,000	250,000
17	64,000	130,000
16	32,000	64,000
15	16,000	32,000
14	8,000	16,000

## Example:

A dirty hydraulic oil could have an ISO cleanliness level of 22/20/18.

ISO 22/20/18		
particles size	number of particles	range no.
4µm +	2,000,000 ≤ 4,000,000	<b>22</b>
6µm +	500,000 ≤ 1,000,000	<b>20</b>
14µm +	130,000 ≤ 250,000	<b>18</b>

**\*Note:** ISO 4406 states particles per 1mL



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Range no.	More than	Up to and including
13	4,000	8,000
12	2,000	4,000
11	1,000	2,000
10	500	1,000
9	250	500
8	130	250
7	64	130
6	32	64
5	16	32
4	8	16
3	4	8
2	2	4
1	1	2

