

ISO 8573-2:2018-02 (E)

Compressed air - Contaminant measurement - Part 2: Oil aerosol content

Contents		Page
Foreword		v
Introduction		vi
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Units	1
5	Reference conditions	2
6	Guidance for selection of sampling method	2
7	Method A -- Description, measuring procedure and calculation of results	2
7.1	Description of sampling equipment and method	2
7.1.1	General	2
7.1.2	Sampling equipment	2
7.2	Sampling procedure	4
7.2.1	Start-up	4
7.2.2	Stabilizing sampling filter	4
7.2.3	Oil measurement	5
7.2.4	Oil/water measurements	5
7.2.5	Air flow-rate (discharge)	7
7.2.6	Temperature	7
7.3	Calculation of test results	7
7.3.1	General	7
7.3.2	Oil content	7
8	Method B -- Description, measuring procedure and calculation of results	7
8.1	General description of sampling equipment and method	7
8.1.1	Sampling disc	8
8.1.2	Sampling disc support	8
8.1.3	Pipes and valves	8
8.1.4	Sampling disc holder	9
8.1.5	Construction materials	9
8.2	Sampling equipment arrangement	9
8.2.1	Sampling equipment Method B1 -- Full flow sampling	9
8.2.2	Sampling equipment Method B2 -- Partial flow sampling	9
8.2.3	Equipment set-up for isokinetic sampling	10
8.2.4	Compressed air flow-rates for isokinetic conditions	11
8.3	Equipment and sampling disc preparation	13
8.3.1	Equipment preparation	13
8.3.2	Oil vapour	13
8.3.3	Temperature	13
8.3.4	Handling	13
8.3.5	Sampling disc contamination check	14
8.4	Compressed air sampling procedure	14
8.4.1	Typical sampling Method B1	14
8.4.2	Typical sampling Method B2	15

9	Analytical procedure for Methods B1 and B2	16
9.1	General	16
9.2	Apparatus	16
9.2.1	Usual laboratory glassware	16
9.2.2	Infrared spectrometer (IR)	16
9.2.3	Gas chromatograph and flame ionization detector (GC-FID)	16
9.3	Analytical procedure linearity check	16
9.4	Analytical procedure -- Oil recovery coefficient	16
9.5	Limit of detection	16
9.6	Calculation of test results	16
9.7	General	16
10	Presentation of results	17
11	Uncertainty of the method	17
Annex A (informative)	Typical test report	18
Annex B (informative)	Typical equipment layout and dimensional details	19
Annex C (informative)	Example IR analysis and calculation of test results for Method B	23
Annex D (informative)	Example GC FID analysis and calculation of test results for Method B	33
Annex E (informative)	Alternative oil aerosol detection	44
Bibliography	45