



CERTIFICATE

of Product Conformity (QAL1)

Certificate No.: 0000033596_01

Certified AMS:

AMESA-D for the long-term sampling of dioxins and furans

Manufacturer:

Environnement S.A. Deutschland

Benzstraße 11

61352 Bad Homburg

Germany

Test Institute:

TÜV Rheinland Energy GmbH

This is to certify that the AMS has been tested

and found to comply with:

Uniform Practice in monitoring emissions* and EN 15267-1: 2009 and EN 15267-2: 2009

Certification is awarded in respect of the conditions stated in this certificate (see also the following pages).

The present certificate replaces certificate 0000033596 of 29. April 2014



Suitability Tested QAL1 Certified EN 15267 Regular Surveillance

www.tuv.com ID 0000033596

Publication in the German Federal Gazette (BAnz.) of 01 April 2014

This certificate will expire on: 30 June 2020

TÜV Rheinland Energy GmbH

D. Pex Sign

German Federal Environment Agency

Cologne, 31 March 2019

Dessau, 1 April 2019

ppa. Dr. Peter Wilbring

Dr. Marcel Langner Head of Section II 4.1

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Am Grauen Stein 51105 Cologne

Accreditation according to EN ISO/IEC 17025:2018 and certified according to ISO 9001:2015.

* Uniform Practice in monitoring emissions, - Circular from the Federal Environment Ministry of June 13, 2005 - IG I 2 - 45053/5 - and August 4, 2010 - IG I 2- 51134/0

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Certificate:

0000033596_01 / 1 April 2019



Test report:

936/21221445/A of 09 October 2013

Initial certification:

01 April 2014

Expiry date:

30 June 2020

Publication:

BAnz AT 01 April 2014 B12, chapter III, No. 1.1

Approved application

The tested long term sampling system is suitable for use for continuous sampling of dioxins and furans. The tested ranges have been chosen with respect to the wide application range of the AMS.

The suitability of the AMS for this application was assessed on the basis of a laboratory test and a fourteen-month field test at two waste incinerators.

The AMS is approved for an ambient temperature range of +5 °C to +40 °C.

Any potential user should ensure, in consultation with the manufacturer, that this AMS is suitable for the installation at which it will be installed.

Basis of the certification

This certification is based on:

- test report 936/21221445/A of 09 October 2013 of TÜV Rheinland Energie und Umwelt GmbH
- suitability announced by the German Federal Environment Agency (UBA) as the relevant body
- the ongoing surveillance of the product and the manufacturing process
- publication in the German Federal Gazette (BAnz AT 01 April 2014 B12, chapter III, No. 1.1, Announcement by UBA from 27 February 2014)



Certificate: 0000033596_01 / 1 April 2019



AMS designation:

AMESA-D for the long-term sampling of dioxins and furans

Manufacturer:

Environnement S.A. Germany, Bad Homburg

Field of application:

Continuous sampling of dioxins/furans

Measuring ranges during the performance test:

Velocity	1.1 - 30	m/s
Dioxin*	up to 0.5	ng/m³ TEQ

^{*}with 260 m³ flue gas to 70 g XAD-2

Software version:

P86.017.0

Restriction:

The performance criterion as related to losses during sampling was not fulfilled in the 6-hour comparison measurements. Therefore, the probe tube shall be rinsed before and after the comparison measurements and the result of the analysis of the rinsing solution after measurement shall be added to the analysed value.

Note:

The integrated velocity measuring system cannot be used in saturated exhaust gas.

Test report:

TÜV Rheinland Energie und Umwelt GmbH, Cologne Report No.: 936/21221445/A of 9 October 2013



Certificate: 0000033596_01 / 1 April 2019



Certified product

This certificate applies to automated measurement systems conforming to the following description: The AMESA-D dioxin/furan monitoring system isokinetically samples a partial flow of the flue gas. Dioxins and furans are adsorbed on a replaceable cartridge filled with adsorber resin.

AMESA-D is fully automatic and saves all necessary data internally. The data can be transferred to an USB stick using an USB interface. Data transfer is also possible via internet.

The amount of dioxins/furans (PCDD/PCDF) over the variable period of 4 hours to 6 weeks is determined in an accredited laboratory.

The AMESA D system comprises:

- a cooled glass probe (during performance testing 2 materials were tested but only glass proved to be suitable a the field test location) with velocity measurement (velocity pressure) and temperature measurement
- a cartridge box with adsorber cartridge and process computer to measurement data recording and Control
- a measuring cabinet with:
 - · sample gas cooler with condensation separator
 - · mass flow meter
 - gas meter
 - pump

General notes

This certificate is based upon the equipment tested. The manufacturer is responsible for ensuring that on-going production complies with the requirements of the EN 15267. The manufacturer is required to maintain an approved quality management system controlling the manufacture of the certified product. Both the product and the quality management systems shall be subject to regular surveillance.

If a product of the current production does not conform to the certified product, TÜV Rheinland Energy GmbH must be notified at the address given on page 1.

A certification mark with an ID-Number that is specific to the certified product is presented on page 1 of this certificate. This can be applied to the product or used in publicity material for the certified product.

This document as well as the certification mark remains property of TÜV Rheinland Energy GmbH. With revocation of the publication the certificate loses its validity. After the expiration of the certificate and on requests of the TÜV Rheinland Energy GmbH this document shall be returned and the certificate mark must not be employed anymore.

The relevant version of this certificate and its expiration is also accessible on the internet: qal1.de.

Certification of AMESA-D for the long-term sampling of dioxins and furans is based on the documents listed below and the regular, continuous monitoring of the Quality Management System of the manufacturer:



Certificate:

0000033596_01 / 1 April 2019



Initial certification according to EN 15267

Certificate No. 0000033596: 29 April 2014
Expiry date of the certificate: 31 March 2019
Test report: 936/21221445/A of 9 October 2013
TÜV Rheinland Energie und Umwelt GmbH, Cologne
Publication: BAnz AT 01 April 2014 B12, chapter III, No. 1.1

Announcement by UBA from 27 February 2014

Renewal of the certificate according to EN 15267

Certificate No. 0000033596_01: 1 April 2019 Expiry date of the certificate: 30 June 2020