

Inorganic Contaminants

SAMPLER DATA:

Sampler/Kit ID: **130384**
Test Start (dmy): **30.12.2019 16:30:00**
Test End (dmy): **16.01.2020 15:00:00**
Test Length: **16 days, 22 hours, 30 minutes**

SCOPE:

This test shows the accumulation and deposition rate of inorganic contaminants including chlorides (salt), acids and bases, collected by the indicator, and is an important indicator of global air cleanliness.

TEST RESULTS:

Accumulation: 0.2570 ug/cm²

Good. The test result is lower than 10 ug/cm² which is the generally accepted limit for commercial applications.

Deposition Rate: 1.81 years until the limit of 10 ug/cm² is reached.

Caution. The test result is less than 5 years which is the average life cycle of IT equipment.

INFORMATION:

Contamination can be either organic or inorganic. There are about 20 million different organic compounds about 500,000 compounds that are inorganic.

The following limits have been established by international organizations* and insurers:

- 10 µg/cm² for buildings and general installations.

Since many inorganics contain chlorides (salt) and corrode metals, it is recommended that electronic equipment be cleaned or replaced if chloride accumulation exceeds 10 µg/cm².

Possible sources include smoke, chemicals and acids. Elevated levels of chlorides are very serious for a technical installation since they cause severe corrosion of system components, especially when air humidity is higher than 50 RH. Even small amounts of smoke from burning PVC can cause large amounts of chlorides to contaminate equipment components. Chlorides may also be contained in concrete dust. This measurement is particularly important in assessing insurance claims resulting from damages caused by smoke or other particle events.

* Source: "Comparative investigations of corrosive fire gas condensates" EMPA - Swiss Federal Laboratories for Materials Testing and Research.