

Particulate Matter PM 10, Particulate Matter PM 2.5

1. General characterization

Particulate matter represents a complex particle mixture of very small particles and liquid drops.

2. Air pollutant effects on human health

- particulate matter with aero-dynamic diameter less than 10 micrometers passes through nose and throat and penetrates in pulmonary alveoli, causing inflammations and intoxications;

- bronchitis aggravation at the persons with pre-existing breathing diseases;

- asthmatic persons and other persons with allergies can react especially to sulfur particles;

- exposure on long term can cause injuries to pulmonary tissue, contributing to chronic breathing diseases and premature death;

- symptoms of chronic obstructive pulmonary disease (COPD)

- chest pain;

3. Air pollutant effects on ecosystems

- ones of the most severe ecological effects of atmospheric pollution derive from the conversion of emissions of sulfur dioxide and nitrogen monoxide into acid particles;

- these acids change the chemical composition of running waters, dissolving also the metals in the soil;

- in combination with ozone, it contributes to forests destruction;

- it can alter the climate because it obstructs the sun light.

4. Specific Index:

PM 10 Concentration Range ($\mu\text{g}/\text{m}^3$)	Specific Index
0-9.99	1
10-19.99	2
20-29.99	3
30-49.99	4
50-99.99	5
>100	6