Primaria Ortisoara

MONTHLY AIR-QUALITY REPORT

Timp de la: **01/12/2025, 00:00**
Timp până la: **30/12/2025, 23:59**

Numele dispozitivului: **Primaria Ortisoara**
Locația dispozitivului: **DN69 258/A, Orțișoara 307305, Romania**

Parametrii: **EAQI , NO_2 , O_3 , SO_2 , $PM_{2.5}$, PM_{10} , Wind Speed , Wind Direction , CO , R. Humidity , PM_1 , PM_{100} , Pressure , Temperature**

Media indicelui de calitate al aerului (ICA): **326**

Prezentare generală zilnică: Parametrii indicelui de calitate al aerului (ICA)

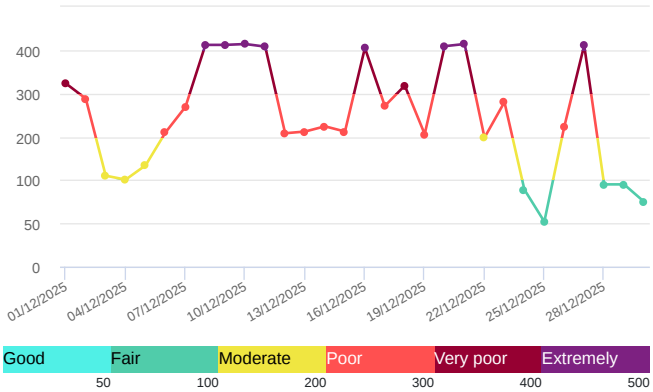
	EAQI AQI	NO_2 µg/m³	O_3 µg/m³	SO_2 ppb	$PM_{2.5}$ µg/m³	PM_{10} µg/m³
Average	326	49.5	20.45	2.58	36.56	112.98
Maximum	414	63.02	37.52	4.22	89.59	298.72
Date	10/12/2025	17/12/2025	28/12/2025	16/12/2025	21/12/2025	21/12/2025
Minimum	52	34.64	5.29	1.08	8.64	20.39
Date	25/12/2025	28/12/2025	17/12/2025	05/12/2025	25/12/2025	25/12/2025

Prezentare generală zilnică: Alți parametri

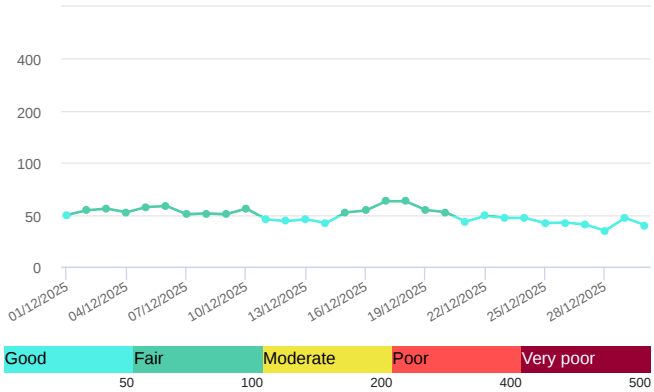
	Wind Speed m/s	Wind Direction degree	Battery %	CO ppb	R. Humidity %	PM1 µg/m³	PM100 µg/m³	Pressure HPa	Temperature °C
Average	0.42	100.84	100	401.17	83.3	27.6	230.43	1009.6	5.53
Maximum	4.22	299.53	100	610.98	88.16	48.79	851.65	1017.21	11.7
Date	30/12/2025	30/12/2025	01/12/2025	17/12/2025	11/12/2025	21/12/2025	09/12/2025	14/12/2025	05/12/2025
Minimum	0.13	219.04	100	329.64	75.39	7.93	31.97	997.61	-0.87
Date	12/12/2025	12/12/2025	01/12/2025	30/12/2025	05/12/2025	25/12/2025	25/12/2025	05/12/2025	30/12/2025

Weekly Average

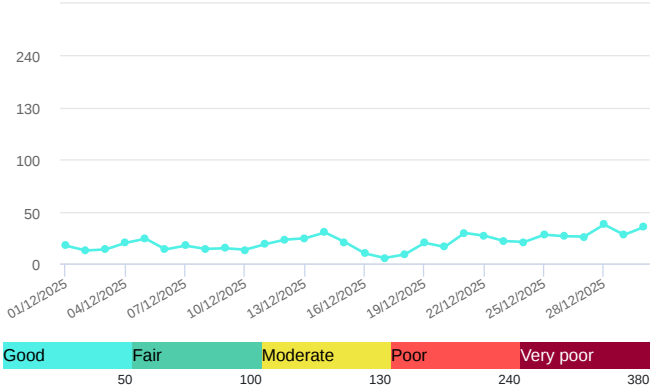
EAQI (AQI)



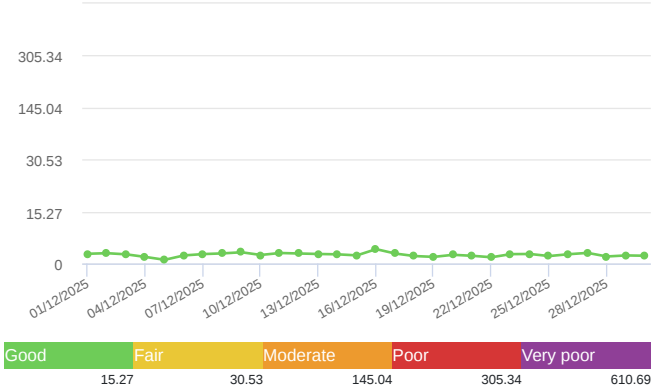
NO_2 (µg/m³)



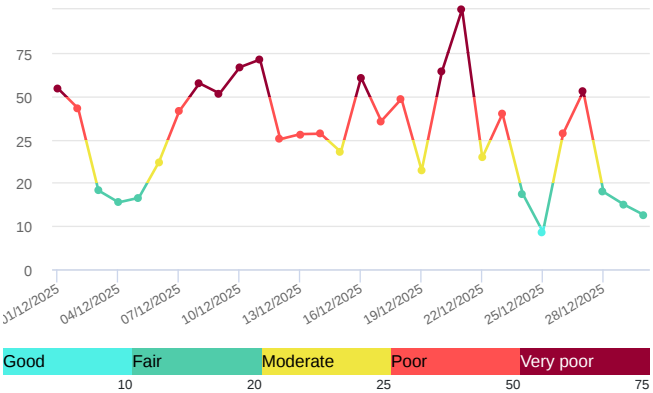
O_3 (µg/m³)



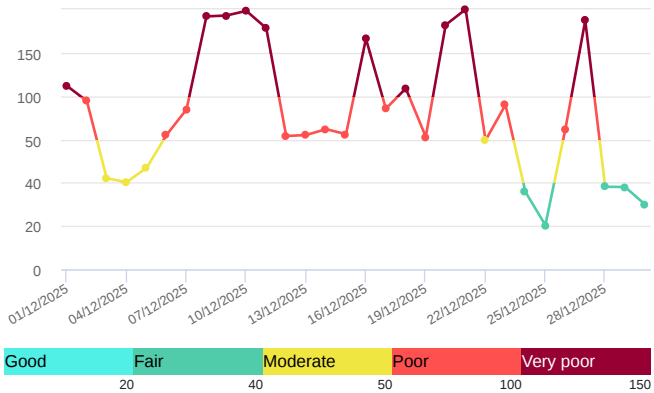
SO_2 (ppb)



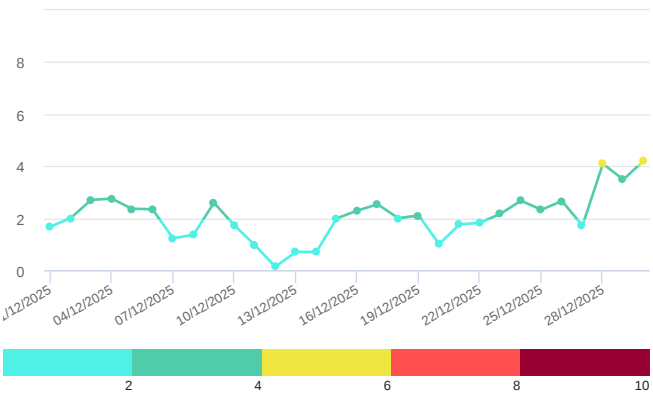
$PM_{2.5}$ (µg/m³)



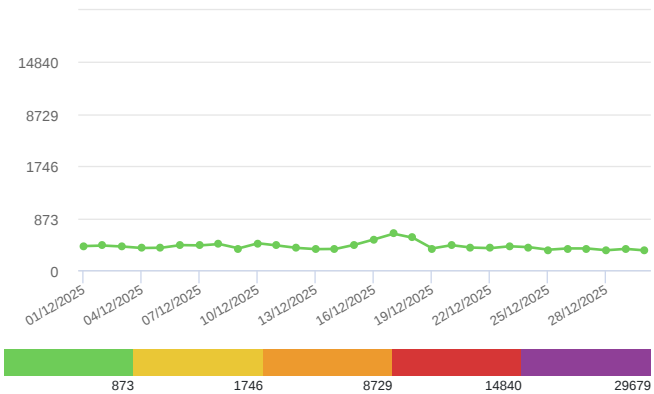
PM_{10} (µg/m³)



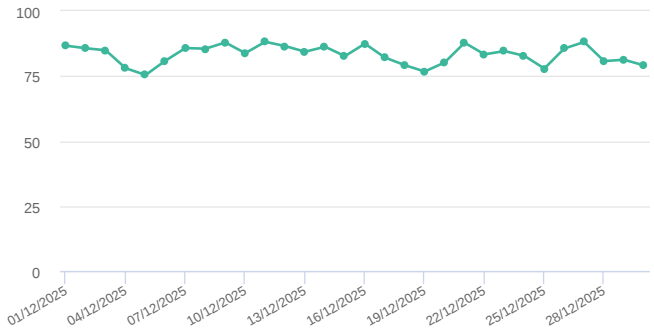
Wind Speed (m/s)



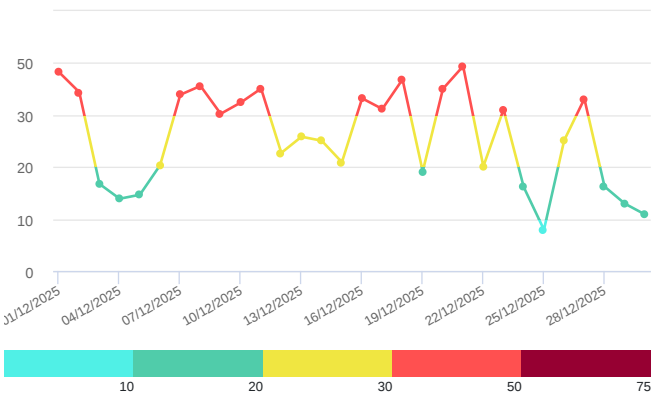
CO (ppb)



R. Humidity (%)

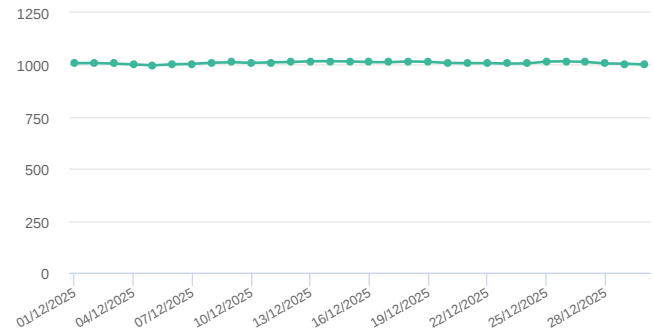


PM₁ (µg/m³)

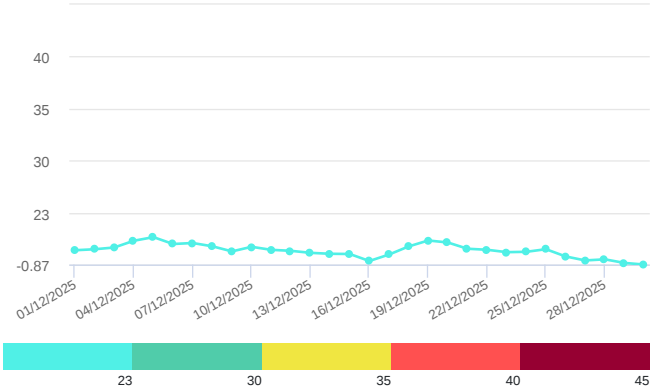


PM₁₀₀ (µg/m³)

Pressure (HPa)

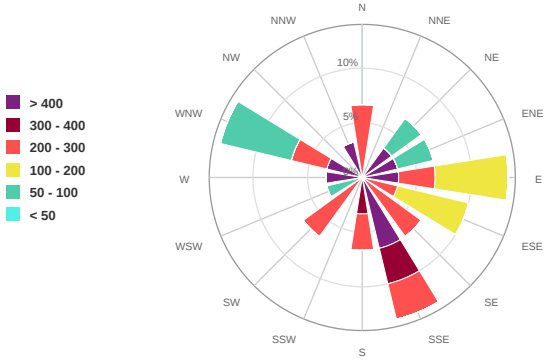


Temperature (°C)

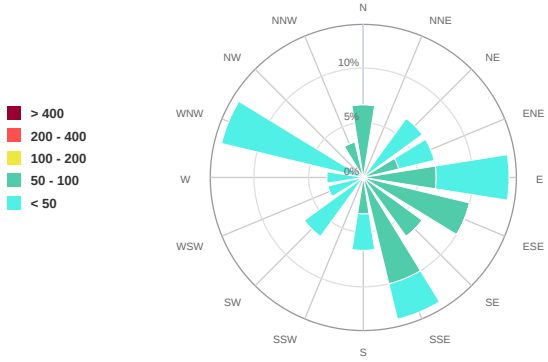


Weekly Average

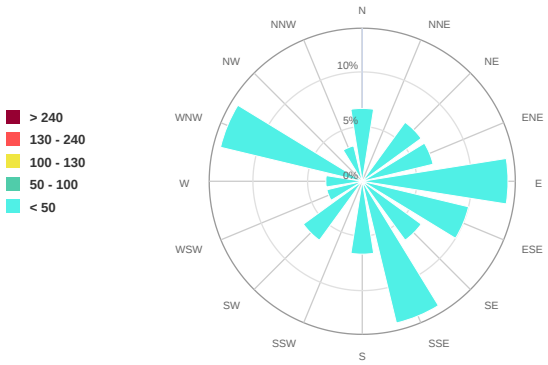
EAQI (AQI)



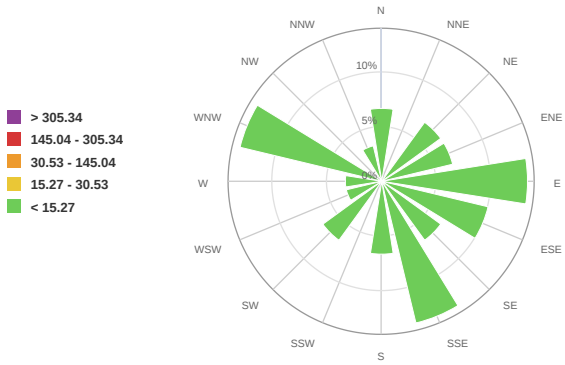
NO_2 (µg/m³)



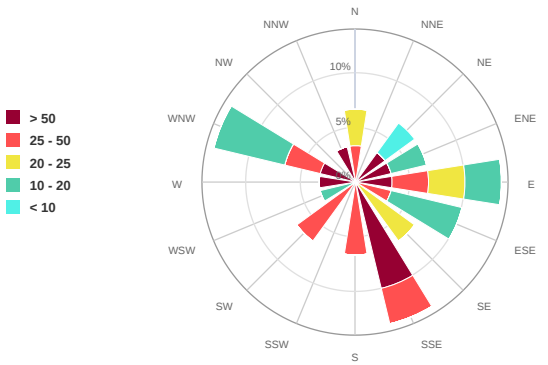
O_3 (µg/m³)



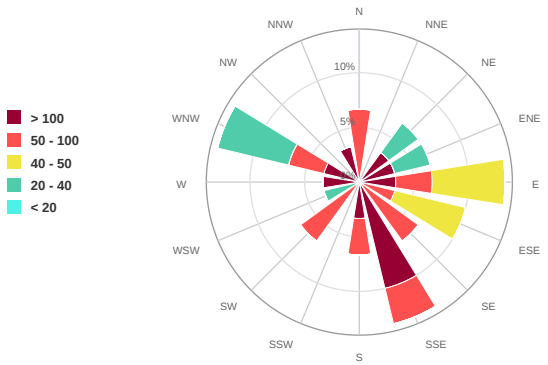
SO_2 (ppb)



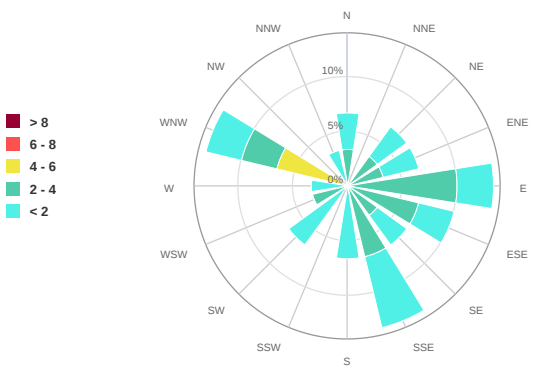
$PM_{2.5}$ (µg/m³)



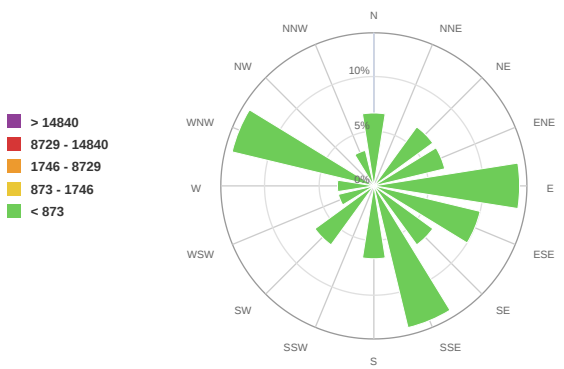
PM_{10} (µg/m³)



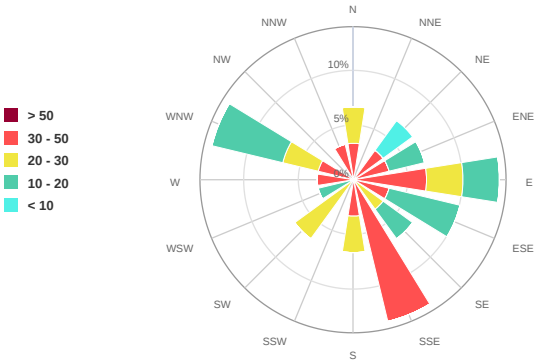
Wind Speed (m/s)



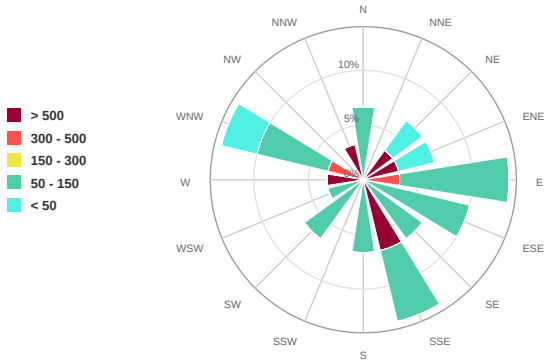
CO (ppb)



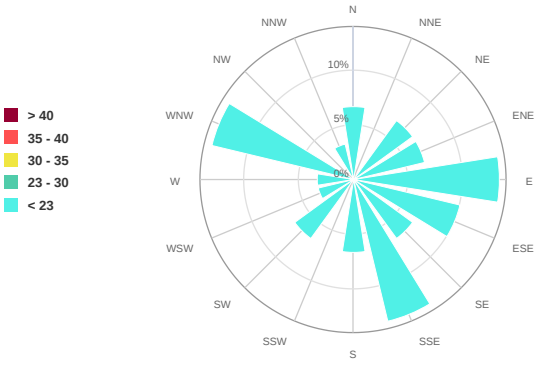
PM_1 (µg/m³)



PM_{100} (µg/m³)



Temperature (°C)



Alerte

No alerts for the selected date and time range

Insights

- 30/12/2025, 23:59 **EAQI Shows Predominantly Poor to Extremely Poor Air Quality**: The EAQI values indicate a prevalence of 'Poor' to 'Extremely Poor' air quality, exceeding safe levels on most days. A high number of days fall within the 'Extremely Poor' range (400-500).
- 30/12/2025, 23:59 **Elevated $PM_{2.5}$ Levels Contribute to Poor Air Quality**: $PM_{2.5}$ concentrations frequently exceed the 'Poor' threshold (25 µg/m³), directly impacting the EAQI. Several instances are in 'Very Poor' and 'Extremely Poor' zones.
- 30/12/2025, 23:59 **High PM_{10} Levels Correlate with High EAQI Values**: PM_{10} levels are often in the 'Poor' to 'Extremely Poor' range, contributing significantly to the elevated EAQI. Peak values reach nearly 300 µg/m³.
- 30/12/2025, 23:59 **NO_2 Levels Consistently in the Moderate to Poor Range**: NO_2 concentrations fluctuate, frequently residing within the 'Moderate' to 'Poor' categories, suggesting consistent pollution from combustion sources.
- 30/12/2025, 23:59 **Ozone Levels Mostly Within Acceptable Ranges**: O_3 levels are generally lower compared to other pollutants, predominantly staying within 'Good' to 'Moderate' ranges, with occasional spikes.
- 30/12/2025, 23:59 **SO_2 Levels Remain Relatively Low**: SO_2 concentrations are consistently low, remaining within the 'Good' range throughout the observed period, indicating minimal sulfur-related pollution.
- 30/12/2025, 23:59 **Wind Speed Impact on Air Quality Needs Further Study**: While wind speed varies, its direct impact on pollutant dispersion and overall air quality isn't immediately apparent from the data provided. Correlation analysis needed.
- 30/12/2025, 23:59 **Temperature Inversion Potential Air Quality Impact**: Lower temperatures recorded at the start and end of the dataset might contribute to temperature inversions, potentially trapping pollutants and worsening air quality.
- 30/12/2025, 23:59 **High Relative Humidity May Affect Pollutant Behavior**: The consistently high relative humidity (around 80%) could be influencing the behavior and persistence of particulate matter in the air.
- 21/12/2025, 23:59 **Highest EAQI Occurrences at Start and Mid of Month**: The 'Extremely Poor' air quality, indicated by the highest EAQI values, is mainly concentrated in the first half and around the middle of December 2025.
- 30/12/2025, 23:59 **CO Levels Frequently Exceed Background Concentrations**: Carbon monoxide concentrations remain elevated, with measurements consistently above 300 ppb, pointing to ongoing combustion activities.
- 30/12/2025, 23:59 **Fair Air Quality Days Are Uncommon**: Days with 'Fair' air quality (EAQI 50-100) are relatively infrequent compared to 'Poor' and 'Extremely Poor' air quality days, only appearing toward the end.
- 30/12/2025, 23:59 **PM_1 Concentrations Mirror $PM_{2.5}$ Trends**: The PM_1 concentrations generally follow similar patterns to $PM_{2.5}$, suggesting a common source and behavior for these finer particulate pollutants.
- 30/12/2025, 23:59 **Pressure Variations Show No Obvious Correlation to EAQI**: Atmospheric pressure fluctuates throughout the month, but there's no immediate observable relationship between these changes and shifts in the EAQI values.
- 09/12/2025, 23:59 **Dec 8th and 9th show extremely elevated PM10 concentrations**: PM10 concentrations showed values above 274 µg/m³ during this period, the concentrations exceeded other days during this period.
- 30/12/2025, 23:59 **Impact of Wind Direction on Air Quality Variability**: Wind direction varies, indicating different potential pollution sources. Analysis is needed to determine specific source impacts on air quality.
- 10/12/2025, 23:59 **Need to investigate PM100 values for potential Anomaly**: PM100 values are significantly higher compared to PM10 & PM2.5 on Dec 8,9,10 and 21. Further investigation required to identify reason.
- 10/12/2025, 23:59 **CO Peaks during Extremely Poor Air Quality Days**: CO concentrations reach highest levels on days classified as 'Extremely Poor' for air quality, pointing towards linked emissions sources.
- 10/12/2025, 23:59 **Temperature Drop Before the Period of extremely elevated PM10**: Temperatures shows a drop before the extremely elevated PM10 concentrations between Dec 8-10.
- 30/12/2025, 23:59 **EAQI (AQI) Values Match Reported EAQI**: The 'EAQI (AQI)' column is identical to the 'EAQI' column, confirming the consistency of the air quality index reporting throughout the dataset.
- 30/12/2025, 23:59 **SO2 remains consistently low**: SO2 remains consistenly below the Good Zone of 38.167938931297705 ppb
- 30/12/2025, 23:59 **Air quality fluctuates, but overall poor**: While the pollutants fluctuate from day to day, the overall trend shows poor to extremely poor air quality throughout December.
- 30/12/2025, 23:59 **Low Temperature and poor air quality correlation**: A pattern emerges where lower temperatures seem to correlate with more incidents of poor to extremely poor air quality.
- 30/12/2025, 23:59 **Investigate relationship between temperature and O3 concentration**: O3 concentration show decrease when temperature decrease, and show increase when temperatures rise.
- 30/12/2025, 23:59 **Pressure impact on AQI**: High pressure days appear to correlate with days of fair AQI. Days showing extremely poor air quality have lower pressure values
- 30/12/2025, 23:59 **High Humidity Impacts**: Increased levels of humidity may lead to higher EAQI values, suggesting that the high humidity affects pollution levels.
- 30/12/2025, 23:59 **Wind Direction impact during the fair AQI**: During the fair AQI from 2025-12-24 to 2025-12-30, most wind directions come from 239 degree to 301 degrees

- 30/12/2025, 23:59 **Lower Wind Speed Leads to Poor Air Quality**: When the wind speed slows, the AQI increases and air quality decreases. Further analysis of wind data is recommended.
- 30/12/2025, 23:59 **Poor air quality impact on PM values**: Poor air quality days usually show an increase in PM 2.5, PM 10, PM 1, PM 100 values
- 30/12/2025, 23:59 **Good Air quality impact on PM values**: Good air quality days usually show a decrease in PM 2.5, PM 10, PM 1, PM 100 values

Parametrii indicelui de calitate al aerului (ICA)

Weekly Average

To Date	EAQI AQI	NO_2 µg/m³	O_3 µg/m³	SO_2 ppb	$PM_{2.5}$ µg/m³	PM_{10} µg/m³
01/12/2025, 23:59	323	49.82	17.17	2.85	54.32	111.72
02/12/2025, 23:59	288	54.24	12.52	3.03	42.77	94.23
03/12/2025, 23:59	110	55.85	13.53	2.69	18.2	40.99
04/12/2025, 23:59	101	52.4	19.87	1.92	15.45	40.13
05/12/2025, 23:59	134	57.42	23.87	1.08	16.5	43.42
06/12/2025, 23:59	210	58.36	13.57	2.36	22.4	55.12
07/12/2025, 23:59	269	50.56	17.13	2.77	41.22	84.53
08/12/2025, 23:59	412	51.23	14.06	2.96	57.35	274.65
09/12/2025, 23:59	412	50.49	14.63	3.3	51.44	277.67
10/12/2025, 23:59	414	55.95	13.32	2.5	66.63	293.46
11/12/2025, 23:59	408	45.48	18.57	3.08	71.06	234.18
12/12/2025, 23:59	208	43.85	22.93	2.93	25.11	53.86
13/12/2025, 23:59	212	45.61	24.25	2.79	27.99	54.95
14/12/2025, 23:59	224	41.97	29.84	2.68	28.26	61.82
15/12/2025, 23:59	212	52.25	20.55	2.38	23.54	55.9
16/12/2025, 23:59	405	54.04	9.7	4.22	60.64	197.96
17/12/2025, 23:59	271	63.02	5.29	2.91	35.53	85.33
18/12/2025, 23:59	318	62.88	8.73	2.19	48.35	108.76
19/12/2025, 23:59	206	54.56	19.92	1.94	21.4	52.95
20/12/2025, 23:59	409	52.45	15.91	2.55	64.01	245.55
21/12/2025, 23:59	414	43.32	29.39	2.26	89.59	298.72
22/12/2025, 23:59	198	49	26.69	1.84	22.9	49.79
23/12/2025, 23:59	280	46.88	21.57	2.75	39.73	89.87
24/12/2025, 23:59	89	46.84	20.73	2.79	17.44	35.71
25/12/2025, 23:59	52	41.96	27.63	2.18	8.64	20.39
26/12/2025, 23:59	223	42.48	26.23	2.72	28.28	61.42
27/12/2025, 23:59	411	40.54	25.83	3.11	52.67	260.34
28/12/2025, 23:59	95	34.64	37.52	2.06	17.87	38.11
29/12/2025, 23:59	95	47.01	27.58	2.37	14.98	37.98
30/12/2025, 23:59	75	39.97	35.01	2.27	12.54	29.91

Alți parametri

Weekly Average

To Date	Wind Speed m/s	Wind Direction degree	Battery %	CO ppb	R. Humidity %	PM_1 µg/m³	PM_{100} µg/m³	Pressure HPa	Temperature °C
01/12/2025, 23:59	1.67	167.31	100	403.68	86.66	46.45	136.17	1007.62	5.7
02/12/2025, 23:59	2	109.22	100	412.3	85.68	38.79	122.65	1008.75	6.15
03/12/2025, 23:59	2.7	114.85	100	395.26	84.89	16.74	57.92	1005.9	6.96
04/12/2025, 23:59	2.75	104.51	100	370.75	77.99	13.89	60.28	1001.64	10.06
05/12/2025, 23:59	2.36	82.97	100	375.38	75.39	14.66	63.81	997.61	11.7
06/12/2025, 23:59	2.34	6.16	100	419.66	80.92	20.33	77.37	1002.33	8.57
07/12/2025, 23:59	1.22	357.97	100	414.28	85.76	37.79	101.8	1004.56	9.01
08/12/2025, 23:59	1.36	330.79	100	437.66	85.5	41.18	786.62	1010.09	7.52
09/12/2025, 23:59	2.59	157.59	100	364.85	87.9	30.47	851.65	1012.18	5.18
10/12/2025, 23:59	1.72	167.07	100	450.08	83.79	34.82	724.91	1009.49	7.26
11/12/2025, 23:59	0.96	294.61	100	412.9	88.16	40.15	440.13	1011.77	5.89
12/12/2025, 23:59	0.13	219.04	100	373.11	86.51	22.71	69.37	1013.47	5.42
13/12/2025, 23:59	0.7	181.43	100	351.9	84.34	25.82	65.79	1017	4.5
14/12/2025, 23:59	0.7	222.55	100	355.5	86.25	25.05	77.68	1017.21	4.08
15/12/2025, 23:59	1.99	127.78	100	425.83	82.66	20.92	77.17	1016.16	3.97
16/12/2025, 23:59	2.29	82.57	100	515.63	87.44	36.39	393.63	1012.93	0.75
17/12/2025, 23:59	2.53	146.68	100	610.98	82.12	32.31	113.32	1012.44	3.72
18/12/2025, 23:59	2	174.97	100	543.41	79.18	43.67	144.32	1016.23	7.44
19/12/2025, 23:59	2.1	128.6	100	363.79	76.72	19.15	73.27	1014.15	10.17
20/12/2025, 23:59	1	67.44	100	417.88	80.21	40.07	565.23	1008.81	9.26
21/12/2025, 23:59	1.76	52.03	100	379.22	87.79	48.79	604.74	1007.96	6.38
22/12/2025, 23:59	1.82	96.43	100	368.63	83.33	20.11	64.79	1008.19	5.91
23/12/2025, 23:59	2.17	86.18	100	399.5	84.58	32.14	119.34	1005.99	4.82
24/12/2025, 23:59	2.67	56.96	100	384.69	82.76	16.12	46.29	1006.47	4.97
25/12/2025, 23:59	2.32	49.29	100	342.42	77.87	7.93	31.97	1015.63	6.16
26/12/2025, 23:59	2.66	301.24	100	363.71	85.56	25.11	86.03	1016.79	2.85
27/12/2025, 23:59	1.71	264.39	100	363.16	88.08	36.23	809.03	1013.53	1.02
28/12/2025, 23:59	4.09	301.98	100	333.5	80.73	16.23	50.54	1006.45	1.52
29/12/2025, 23:59	3.48	239	100	355.76	81.26	12.95	55.06	1005.13	-0.14
30/12/2025, 23:59	4.22	299.53	100	329.64	79.07	10.87	41.91	1001.51	-0.87