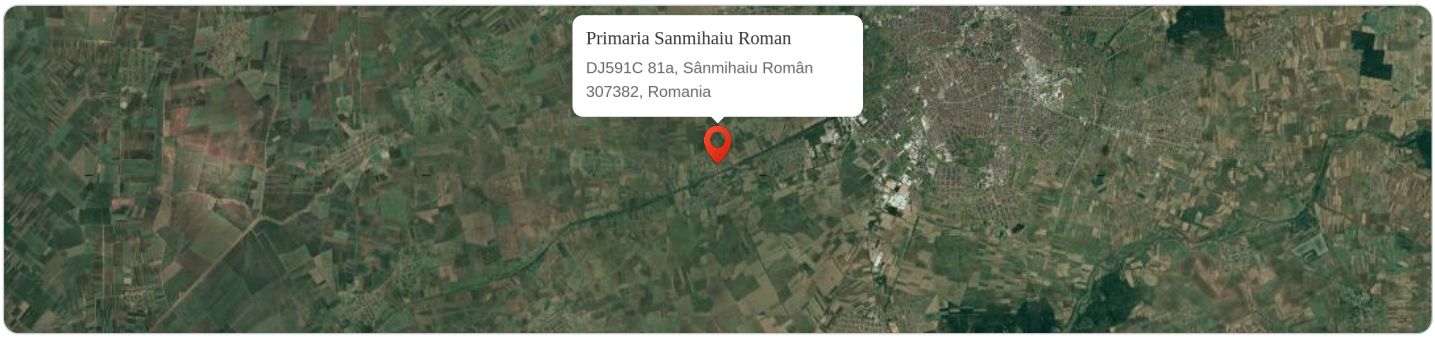
Primaria Sanmihaiu Roman

MONTHLY AIR-QUALITY REPORT

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

Numele dispozitivului: **Primaria Sanmihaiu Roman**
Locația dispozitivului: **DJ591C 81a, Sânmihaiu Român 307382, 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): **411**

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

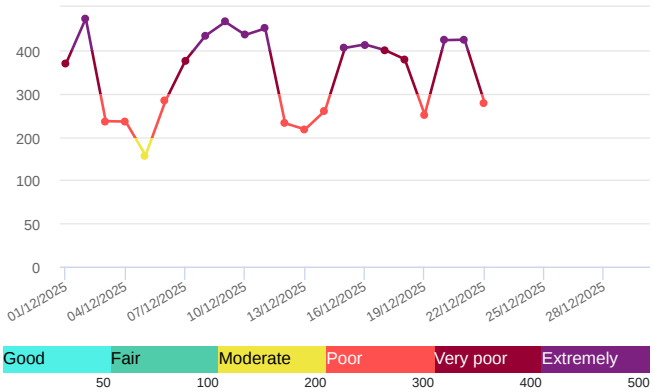
	EAQI AQI	NO_2 µg/m³	O_3 µg/m³	SO_2 ppb	$PM_{2.5}$ µg/m³	PM_{10} µg/m³
Average	411	32.29	61.55	2.33	95.03	269.7
Maximum	473	46.06	68.97	3.14	275.37	919.57
Date	02/12/2025	05/12/2025	15/12/2025	21/12/2025	09/12/2025	02/12/2025
Minimum	157	23.79	55.96	1.29	20.94	45.67
Date	05/12/2025	14/12/2025	18/12/2025	05/12/2025	05/12/2025	05/12/2025

Prezentare generală zilnică: Alți parametri

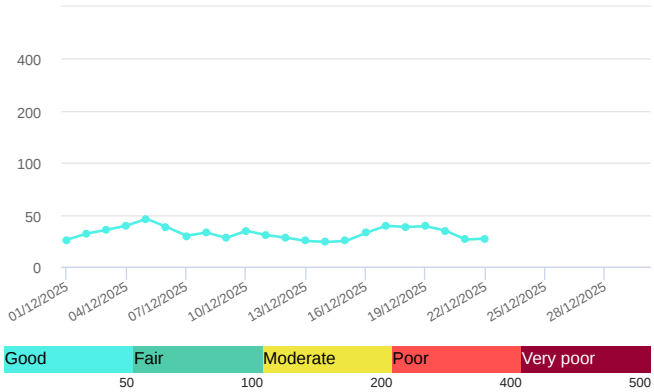
	Wind Speed m/s	Wind Direction degree	Battery %	CO ppb	R. Humidity %	PM1 µg/m³	PM100 µg/m³	Pressure HPa	Temperature °C
Average	0.99	118.75	95.62	444.27	88.11	42.69	413.07	1014.64	5.72
Maximum	5.1	126.66	100	635.13	95.1	64.23	1614.78	1022.24	11.05
Date	05/12/2025	05/12/2025	01/12/2025	18/12/2025	09/12/2025	02/12/2025	02/12/2025	14/12/2025	05/12/2025
Minimum	0.19	193.39	8.89	312.71	79.79	19.2	55.06	1002.14	0.29
Date	14/12/2025	14/12/2025	22/12/2025	15/12/2025	05/12/2025	05/12/2025	05/12/2025	05/12/2025	16/12/2025

Weekly Average

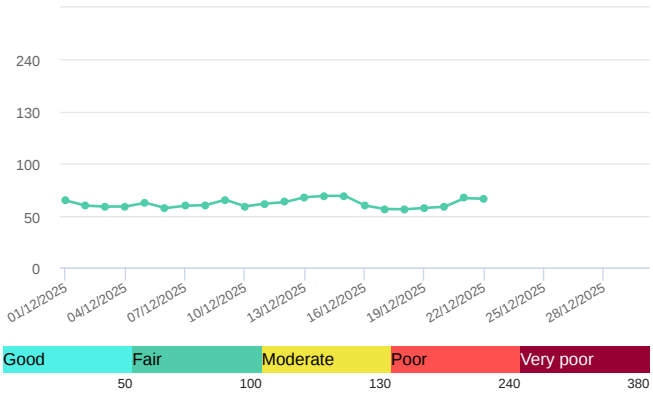
EAQI (AQI)



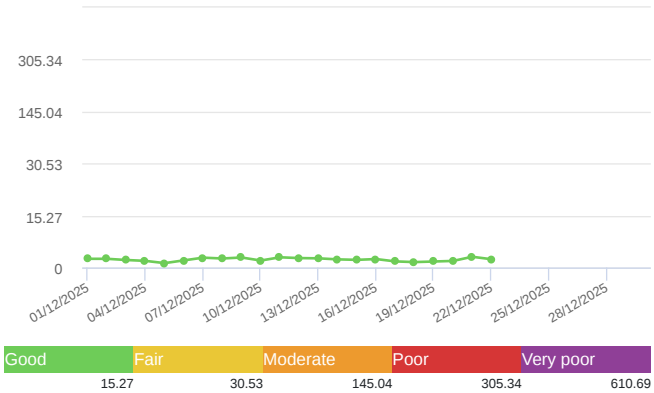
NO_2 (µg/m³)



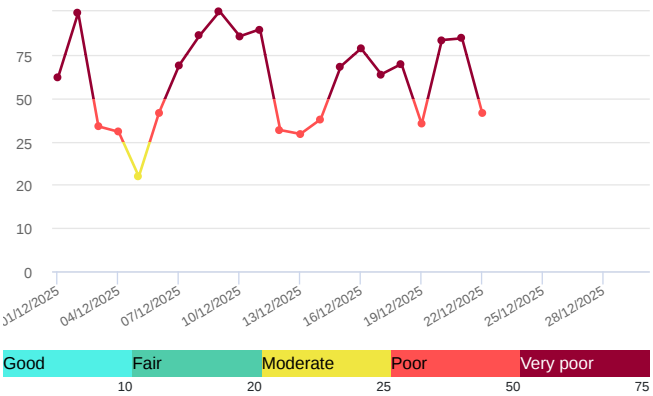
O_3 (µg/m³)



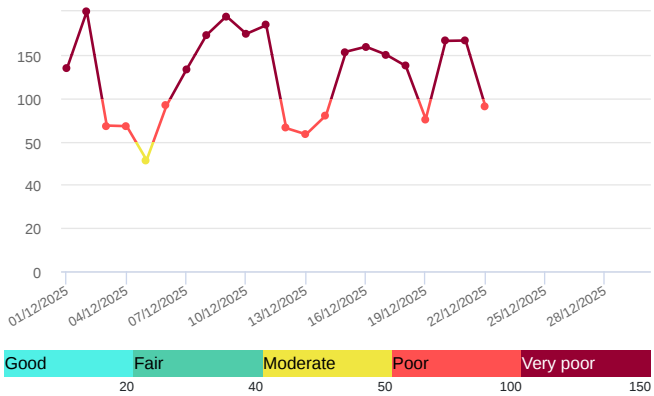
SO_2 (ppb)



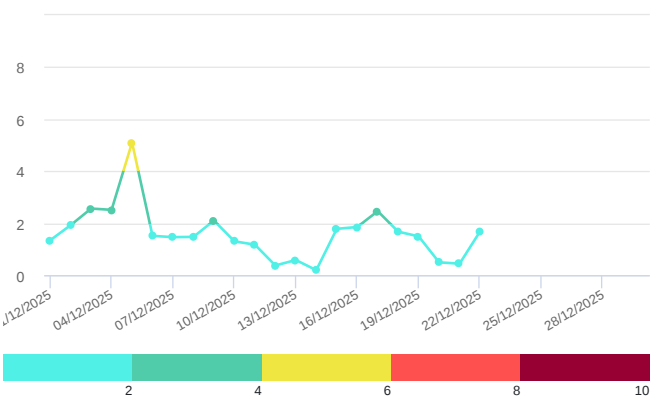
$PM_{2.5}$ (µg/m³)



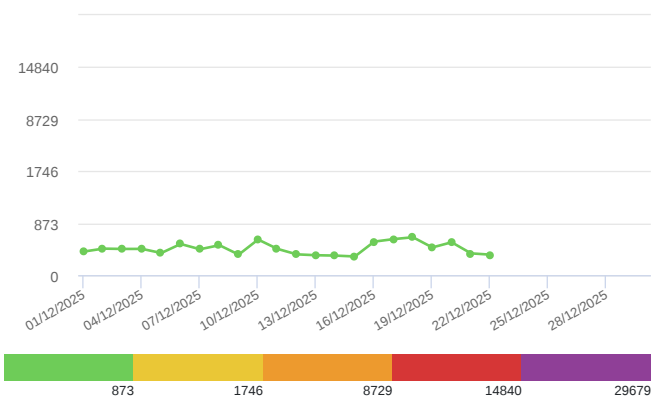
PM_{10} (µg/m³)



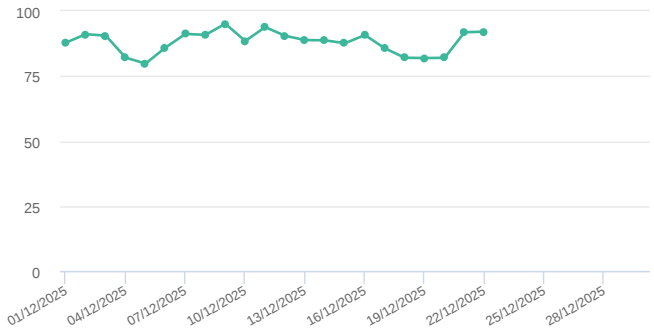
Wind Speed (m/s)



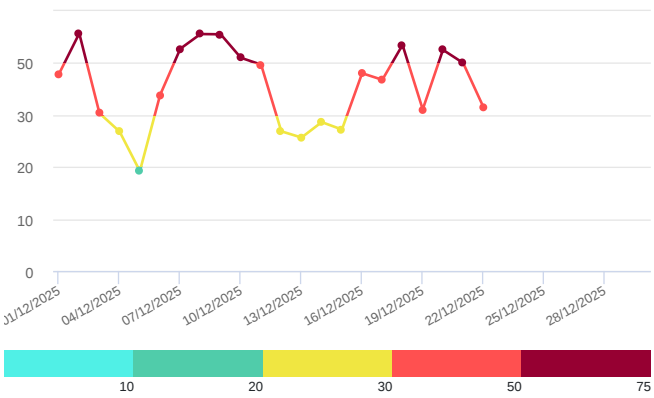
CO (ppb)



R. Humidity (%)

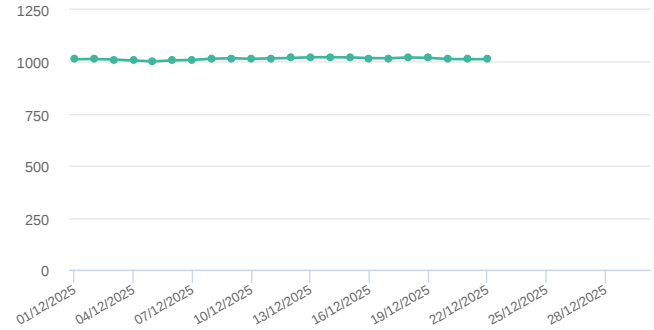


PM₁ (µg/m³)

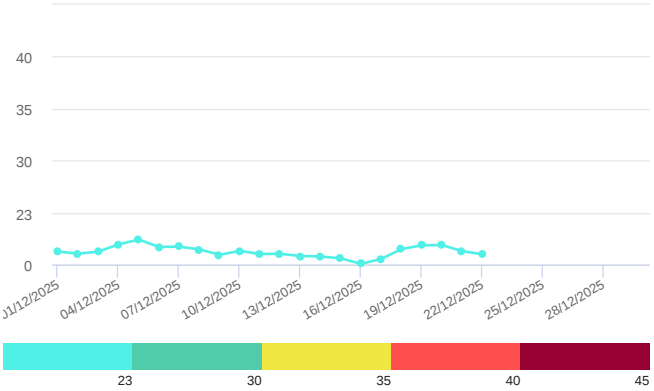


PM₁₀₀ (µg/m³)

Pressure (HPa)

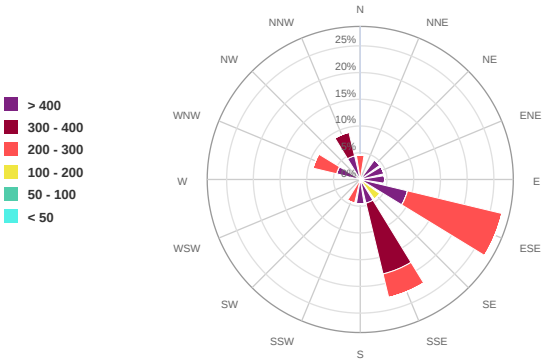


Temperature (°C)

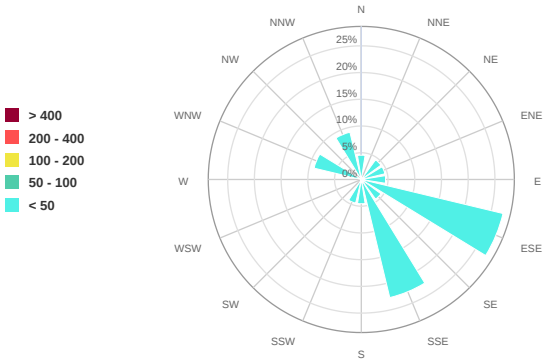


Weekly Average

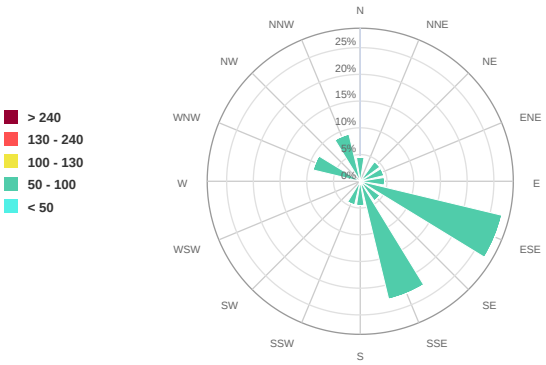
EAQI (AQI)



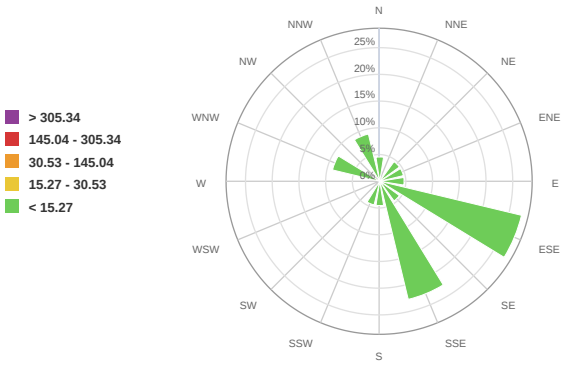
NO₂ (µg/m³)



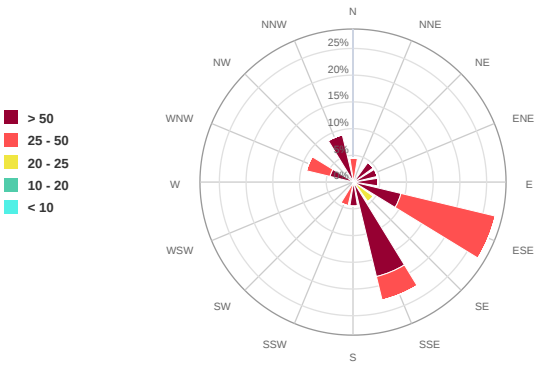
O₃ (µg/m³)



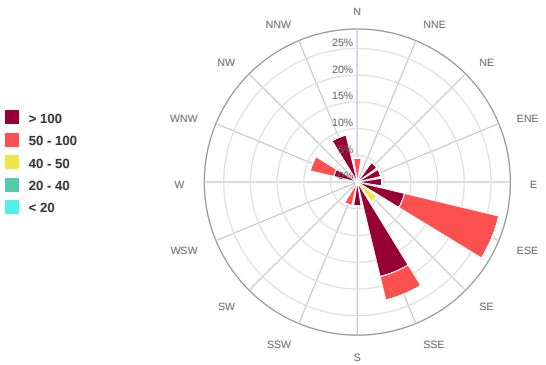
SO₂ (ppb)



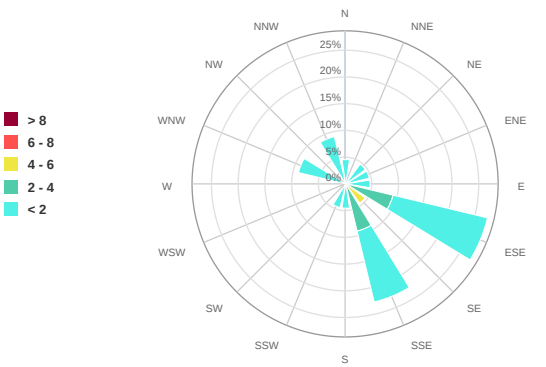
PM₂.₅ (µg/m³)



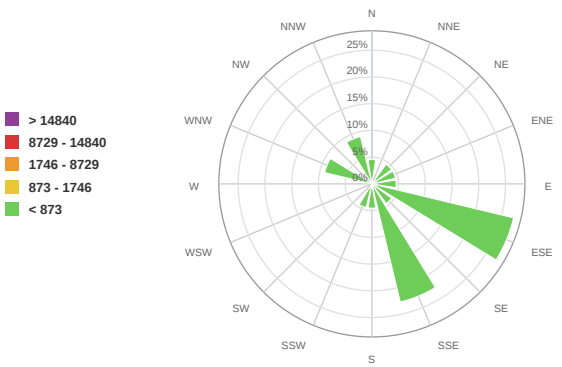
PM₁₀ (µg/m³)



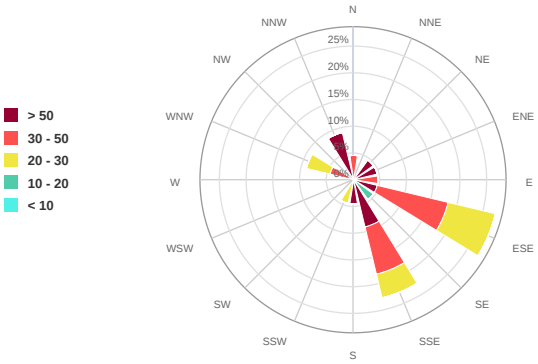
Wind Speed (m/s)



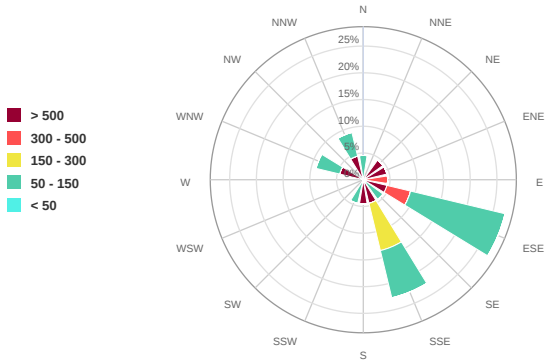
CO (ppb)



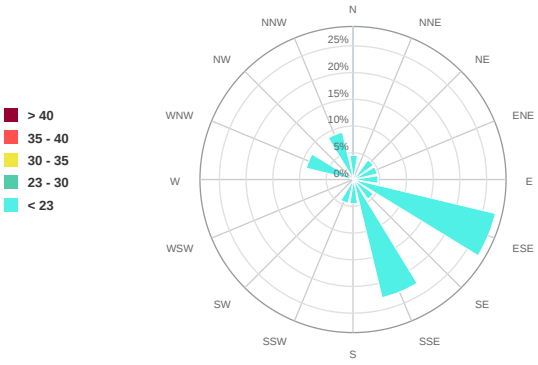
PM_1 (µg/m³)



PM_{100} (µg/m³)



Temperature (°C)



Alerte

No alerts for the selected date and time range

Insights

- 22/12/2025, 23:59 **EAQI reached extremely poor levels on multiple days**: The EAQI reached 'Extremely Poor' levels on 9 out of the 22 days with available data, indicating a significant air quality issue. The maximum recorded EAQI was 473.
- 22/12/2025, 23:59 **High $PM_{2.5}$ significantly impacts air quality**: $PM_{2.5}$ levels frequently exceeded the 'Poor' threshold, contributing to the elevated EAQI. The highest $PM_{2.5}$ recorded was 275.37 µg/m³, which is in extremely poor threshold.
- 22/12/2025, 23:59 **PM_{10} levels consistently above safe limits**: PM_{10} measurements were frequently in the 'Poor' to 'Extremely Poor' range. A maximum value of 919.57 µg/m³ was recorded, indicating a significant health hazard.
- 22/12/2025, 23:59 **Ozone levels remain mostly in Very Poor Zone**: O_3 levels mostly remained above the 'Poor' threshold, with the highest ozone level being 135.4 µg/m³, falling into Very Poor zone and contributing to the poor air quality.
- 22/12/2025, 23:59 **NO_2 levels fluctuated across different AQ zones**: NO_2 levels varied from 'Fair' to 'Poor' AQ zones. The highest NO_2 recorded was 86.68 µg/m³, which falls into Poor zone but this parameter is not the primary driver of poor AQI.
- 22/12/2025, 23:59 **SO_2 levels remain consistently low**: SO_2 levels were consistently low, remaining in the 'Good' zone. This suggests that SO_2 is not a major contributor to the overall poor air quality.
- 22/12/2025, 23:59 **High Relative Humidity is observed**: The relative humidity consistently remained high, above 79% for most of the duration. On 2nd December the relative humidity reaches peak value of 95.1%
- 22/12/2025, 23:59 **Pressure is stable for the observed duration**: The Atmospheric pressure remains stable above 1000 HPa through out the duration except on one day (Dec 5th). This indicates a stable weather pattern.
- 22/12/2025, 23:59 **Temperature fluctuations are significant**: Temperature exhibits some fluctuations during the observed period. The range is between 0.29 to 11.05 degrees celcius. December 16 shows lowest temperature.
- 22/12/2025, 23:59 **Wind Speed is variable during time period**: The Wind speed is variable throughout the period. The highest wind speed of 5.1 m/s was recorded on December 5th and lowest was 0.19 m/s on December 14th.
- 30/12/2025, 23:59 **Missing data impacts analysis**: No data is available from 2025-12-23 onwards, limiting the completeness of the air quality assessment for the entire month. Data can be used for only 22 days.
- 22/12/2025, 23:59 **EAQI and $PM_{2.5}$ correlation is strong**: A high EAQI value often corresponds with a high $PM_{2.5}$ concentration, indicating a strong relationship between these two parameters. It impacts the Air Quality.
- 22/12/2025, 23:59 **Wind Direction Variance Observed**: Wind direction varies, with changes potentially influencing pollutant dispersion. Further analysis is required to correlate with pollutant concentrations.
- 22/12/2025, 23:59 **Battery Levels are Consistent**: Battery levels are consistently at 100% except on Dec 21 and Dec 22, suggesting reliable power source for measurement devices. This ensures consistent Data.
- 22/12/2025, 23:59 **CO levels fluctuate considerably**: Carbon Monoxide (CO) levels fluctuate throughout the period, ranging from 312.71 ppb to 635.13 ppb. Further investigation could reveal patterns and sources.
- 22/12/2025, 23:59 **PM1 levels show moderate variations**: PM1 levels fluctuate, indicating varying sources or formation processes. Correlating with other pollutants is important. Highest PM1 is 64.23 µg/m³ on 2nd Dec.
- 22/12/2025, 23:59 **High PM_{100} During 'Extremely Poor' AQI Days**: Elevated PM_{100} measurements coincide with days categorized as having 'Extremely Poor' air quality. PM100 reaches peak of 1614.78 on December 2nd.
- 09/12/2025, 23:59 **Dec 9 shows very high PM10 pollution**: On December 9th, PM10 peaks to 832.95. This highly impacts EAQI, classifying air quality as extremely poor. Wind direction should be taken into account.
- 22/12/2025, 23:59 **Correlation between temperature and $PM_{2.5}$ levels**: There seems to be a correlation. Lower temperatures seem to coincide with high $PM_{2.5}$ values and thus worse air quality. December 16th temperature is the lowest.
- 22/12/2025, 23:59 **Increase CO During Extremely Poor EAQI Readings**: Higher CO concentrations seem to frequently occur during periods when the EAQI indicates 'Extremely Poor' air quality. Further analysis is needed.
- 22/12/2025, 23:59 **PM1 follows the same trend as PM2.5**: PM1 levels closely mirrors the levels and trends observed in PM2.5. Suggesting they have similar causes. PM1 are still under safe threshold.
- 08/12/2025, 23:59 **December 8 shows exceptionally high PM100 values**: PM100 values rise above 800 mark on Dec 8th. This also results in EAQI to reach extremely poor threshold. This needs to be examined closely.
- 22/12/2025, 23:59 **SO2 concentration variation is minimum**: The concentration of SO2 is consistently negligible across the whole timeframe. This means SO2 is not the main contributor for AQI.
- 22/12/2025, 23:59 **O3 are very consistent throughout timeframe**: O3 value has been observed to be between range 109.86 to 135.4. This indicates the stability in O3 parameters for the observed duration.
- 22/12/2025, 23:59 **NO2 has very small impact on the EAQI value**: NO2 shows moderate reading. But, it has relatively small impact on final EAQI score. Highest NO2 score is 86.68 observed on December 5th.
- 21/12/2025, 23:59 **December 21 Shows Sudden Drop in Battery**: There is sharp drop to 94.73%. It quickly recovers. But, this may have influenced or skewed parameters. Analysis required to confirm.
- 02/12/2025, 23:59 **Extremely High PM10 Level on December 2**: On December 2, PM10 reaches a peak of 919.57 µg/m³, significantly impacting air quality, pushing it into the 'Extremely Poor' category.

- 22/12/2025, 23:59 **Wind Directions Clustered**: Wind directions predominantly fall within a certain range, suggesting potential localized pollution sources. Further investigation required.
- 10/12/2025, 23:59 **December 9 and 10 exhibit the high PM10**: PM10 values remain extremely high on December 9 and 10. They influence final AQI value to reach extremely poor levels, indicating significant PM pollution.
- 22/12/2025, 23:59 **Correlation between PM100 and PM10**: High PM100 is typically associated with high PM10. This means it follows similar trends. Analysis must be done to mitigate these conditions.

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	368	25.97	64.39	2.55	61.78	133.89
02/12/2025, 23:59	473	31.91	59.48	2.55	268.99	919.57
03/12/2025, 23:59	236	35.44	58.53	2.2	33.62	68.2
04/12/2025, 23:59	235	39.54	58.69	1.94	30.5	67.51
05/12/2025, 23:59	157	46.06	62.22	1.29	20.94	45.67
06/12/2025, 23:59	283	38.25	57.13	2.09	41.52	91.38
07/12/2025, 23:59	376	29.68	59.44	2.88	68.94	132.84
08/12/2025, 23:59	433	32.89	59.91	2.64	162.52	496.89
09/12/2025, 23:59	465	27.63	65.17	2.93	275.37	832.95
10/12/2025, 23:59	435	34.53	58.84	2.05	160.21	519.89
11/12/2025, 23:59	450	30.41	61.42	3	192.7	674.18
12/12/2025, 23:59	231	27.88	62.96	2.77	31.51	65.25
13/12/2025, 23:59	217	24.81	67.63	2.69	29.24	58.07
14/12/2025, 23:59	260	23.79	68.87	2.38	37.73	80.09
15/12/2025, 23:59	405	24.77	68.97	2.24	68.32	203.3
16/12/2025, 23:59	413	32.43	59.59	2.47	103.78	291.36
17/12/2025, 23:59	400	39.37	56.3	1.78	63.67	152.73
18/12/2025, 23:59	379	38.24	55.96	1.59	69.65	136.96
19/12/2025, 23:59	251	38.96	57.29	1.75	34.94	75.64
20/12/2025, 23:59	423	34.67	58.47	1.92	142.65	395.38
21/12/2025, 23:59	424	26.12	66.7	3.14	150.74	401.96
22/12/2025, 23:59	279	27.06	66.07	2.43	41.23	89.66
23/12/2025, 23:59						
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25/12/2025, 23:59						
26/12/2025, 23:59						
27/12/2025, 23:59						
28/12/2025, 23:59						
29/12/2025, 23:59						
30/12/2025, 23:59						

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	1.34	150.18	100	395.12	87.84	45.86	162.13	1012.43	5.75
02/12/2025, 23:59	1.92	103.06	100	444.44	91.07	64.23	1614.78	1013.5	4.81
03/12/2025, 23:59	2.56	120.4	100	438.89	90.54	30.69	77.11	1010.65	5.72
04/12/2025, 23:59	2.51	108.91	100	439.94	82.05	26.79	78.62	1006.27	8.95
05/12/2025, 23:59	5.1	126.66	100	370.61	79.79	19.2	55.06	1002.14	11.05
06/12/2025, 23:59	1.51	358.57	100	522.03	85.95	37.67	104.68	1007.01	7.77
07/12/2025, 23:59	1.46	340.74	100	433.95	91.19	56.85	143.1	1009.32	7.94
08/12/2025, 23:59	1.47	333.5	100	502.31	90.82	63.93	847.33	1014.92	6.69
09/12/2025, 23:59	2.1	149.26	100	343.59	95.1	63.8	1251.7	1017.07	4.33
10/12/2025, 23:59	1.3	176.79	100	597.19	88.47	52.49	922.62	1014.33	6.07
11/12/2025, 23:59	1.17	287.49	100	439.71	93.79	49.38	1091.01	1016.65	4.68
12/12/2025, 23:59	0.37	302.64	100	348.41	90.47	26.86	72.84	1018.41	4.74
13/12/2025, 23:59	0.58	150.68	100	333.79	88.82	25.66	64.01	1021.97	3.77
14/12/2025, 23:59	0.19	193.39	100	327.04	88.72	28.63	88.33	1022.24	3.58
15/12/2025, 23:59	1.78	113.08	100	312.71	87.6	27.2	365.96	1021.11	2.71
16/12/2025, 23:59	1.85	79.14	100	562.44	90.76	46.06	485.02	1017.79	0.29
17/12/2025, 23:59	2.46	148.94	100	604.08	85.65	43.55	226.77	1017.24	2.53
18/12/2025, 23:59	1.67	161.33	100	635.13	82.02	58.71	148.89	1021.08	6.83
19/12/2025, 23:59	1.49	118.24	100	464.46	81.91	32.15	86.62	1018.91	8.5
20/12/2025, 23:59	0.49	67.29	100	550.57	82	56.32	571.7	1013.46	8.62
21/12/2025, 23:59	0.44	55.05	94.73	364.72	91.84	50.02	530.49	1012.47	5.93
22/12/2025, 23:59	1.68	101.8	8.89	342.83	92.05	33.1	98.66	1013.02	4.56
23/12/2025, 23:59									
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