Primaria Teremia Mare

MONTHLY AIR-QUALITY REPORT

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

Numele dispozitivului: **Primaria Teremia Mare**
Locația dispozitivului: **DN59C Matei Boldovina, Teremia Mare 307405, 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): **404**

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

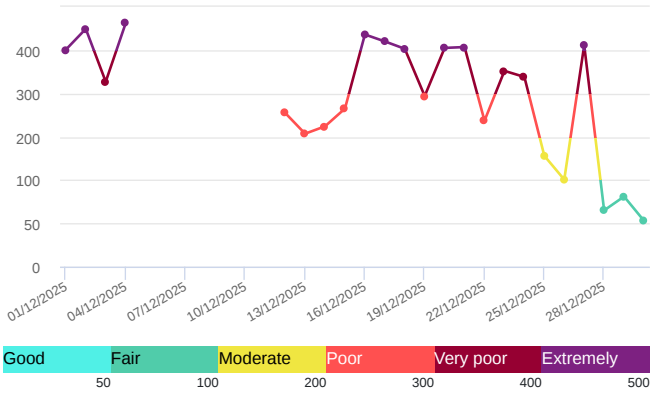
	EAQI AQI	NO_2 µg/m³	O_3 µg/m³	SO_2 ppb	$PM_{2.5}$ µg/m³	PM_{10} µg/m³
Average	404	21.05	2.21	10.01	74.81	186.91
Maximum	462	62.48	17.82	17.02	230.76	799.02
Date	04/12/2025	12/12/2025	30/12/2025	12/12/2025	04/12/2025	04/12/2025
Minimum	53	9.64	0	5.25	10.65	20.8
Date	30/12/2025	29/12/2025	12/12/2025	29/12/2025	30/12/2025	30/12/2025

Prezentare generală zilnică: Alți parametri

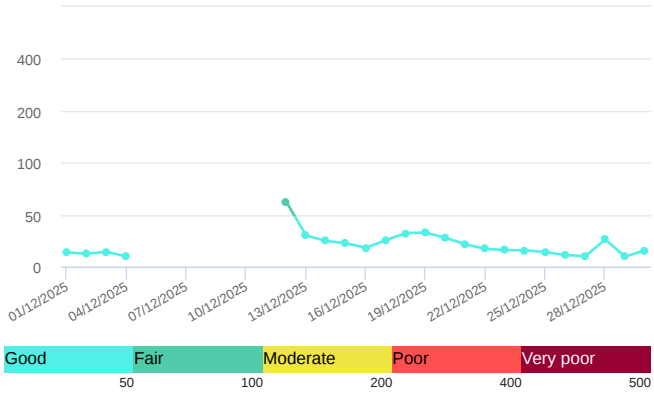
	Wind Speed m/s	Wind Direction degree	Battery %	CO ppb	R. Humidity %	PM1 µg/m³	PM100 µg/m³	Pressure HPa	Temperature °C
Average	0.36	116.96	93.88	450.56	89.74	43.55	280.96	1015.54	3.8
Maximum	5.41	308.33	100	714.89	94.6	80.73	1513.14	1022.21	8.5
Date	28/12/2025	28/12/2025	01/12/2025	18/12/2025	04/12/2025	18/12/2025	04/12/2025	14/12/2025	19/12/2025
Minimum	0.51	265.67	0.92	338.13	76.05	9.47	25.15	1006.87	-0.37
Date	12/12/2025	12/12/2025	04/12/2025	30/12/2025	30/12/2025	30/12/2025	30/12/2025	30/12/2025	30/12/2025

Weekly Average

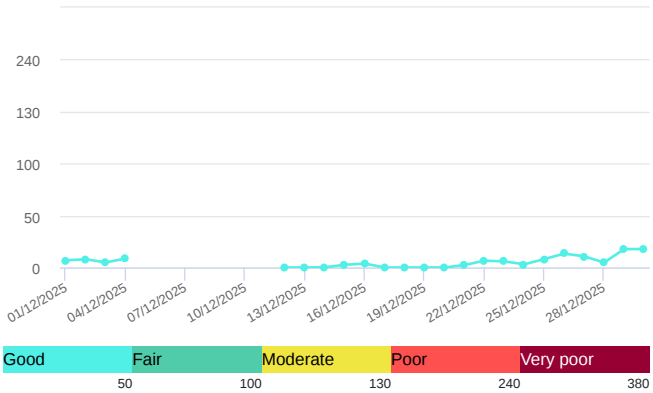
EAQI (AQI)



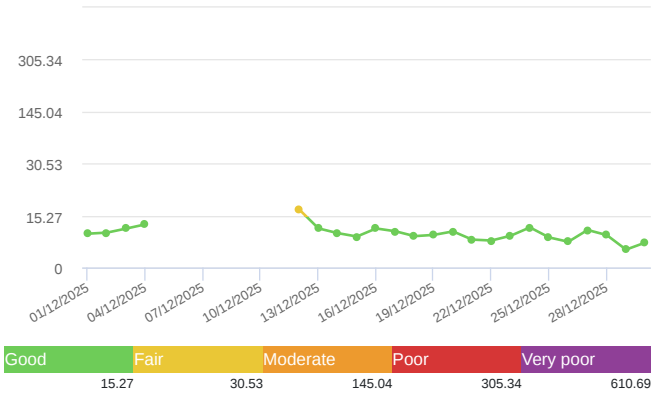
NO_2 (µg/m³)



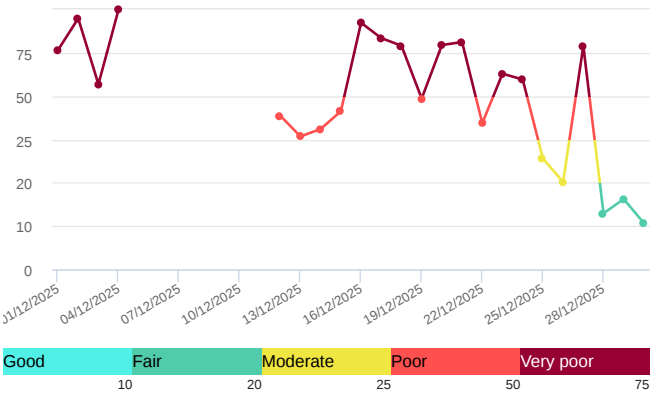
O_3 (µg/m³)



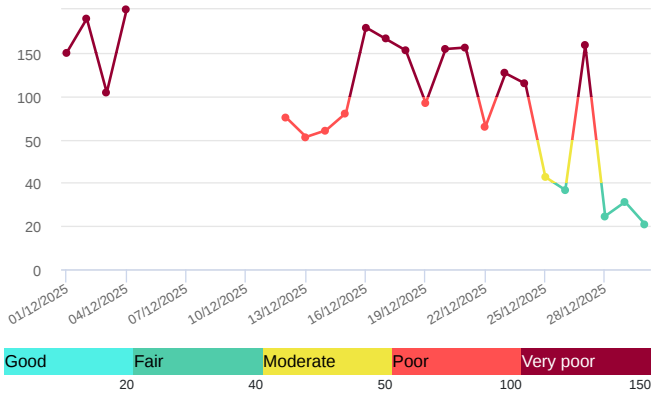
SO_2 (ppb)



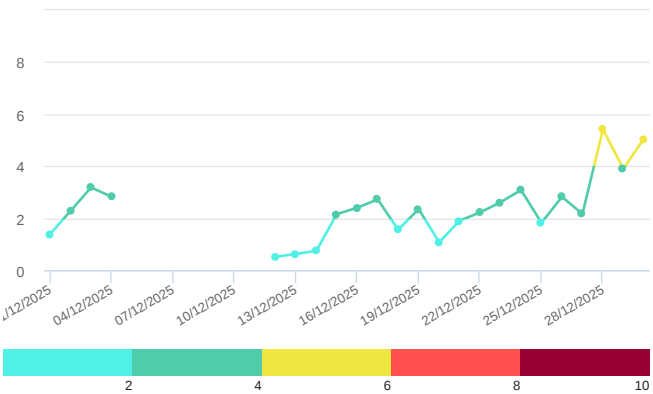
$PM_{2.5}$ (µg/m³)



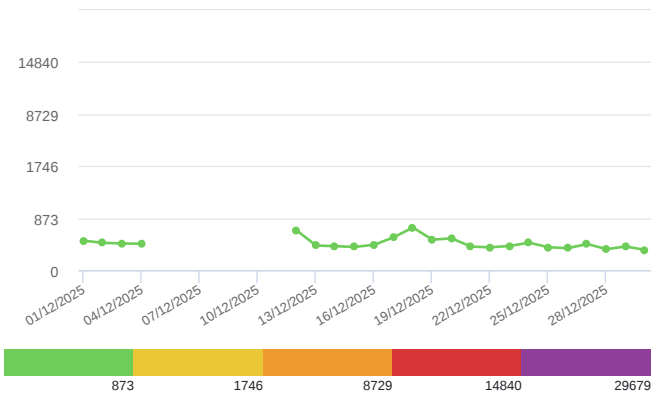
PM_{10} (µg/m³)



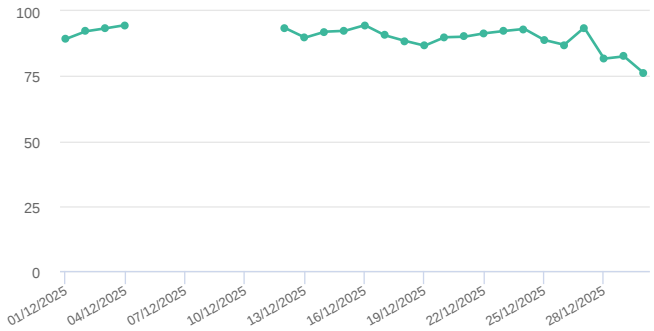
Wind Speed (m/s)



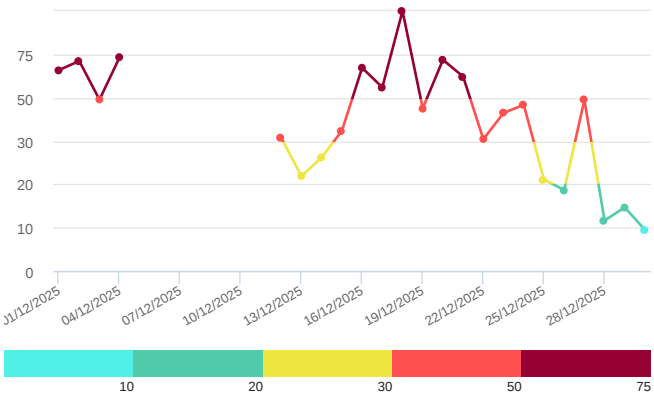
CO (ppb)



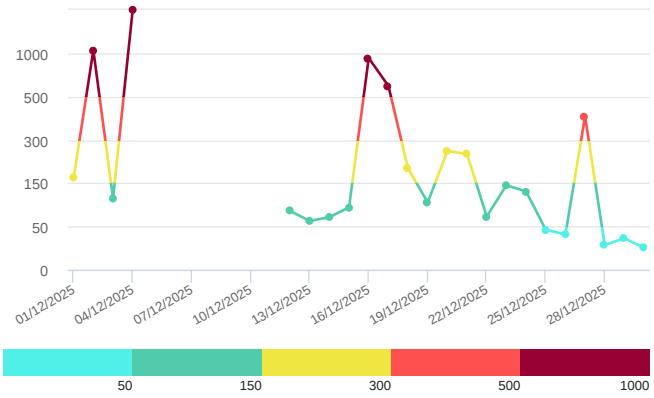
R. Humidity (%)



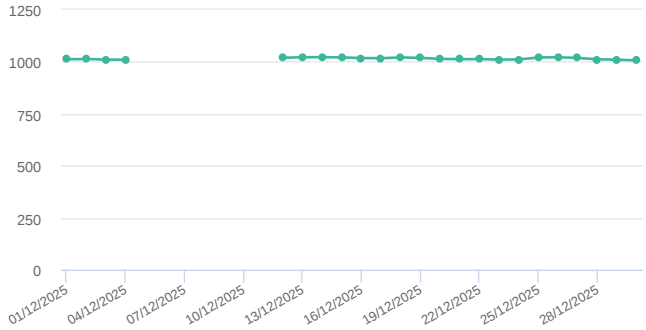
PM₁ (µg/m³)



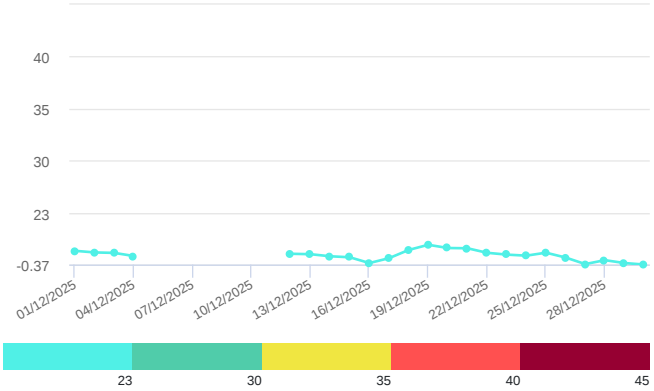
PM₁₀₀ (µg/m³)



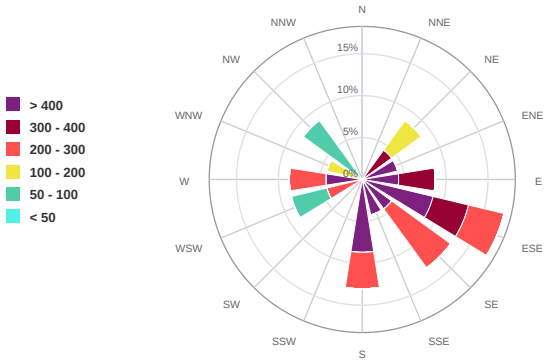
Pressure (HPa)



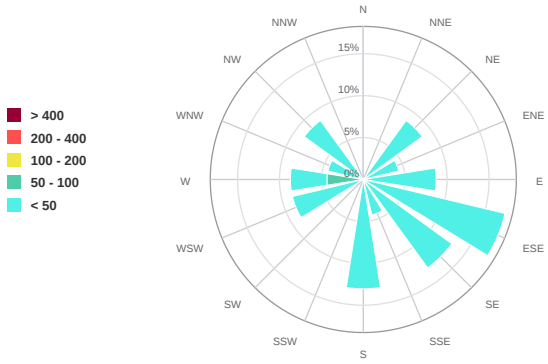
Temperature (°C)



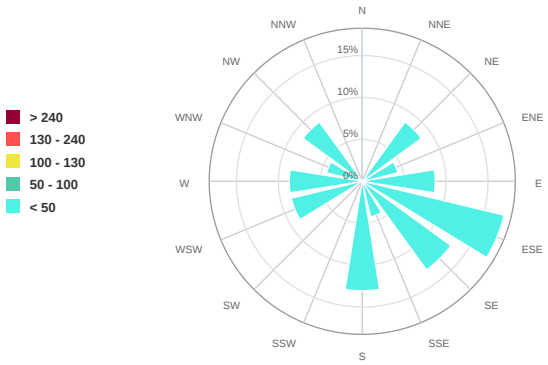
EAQI (AQI)



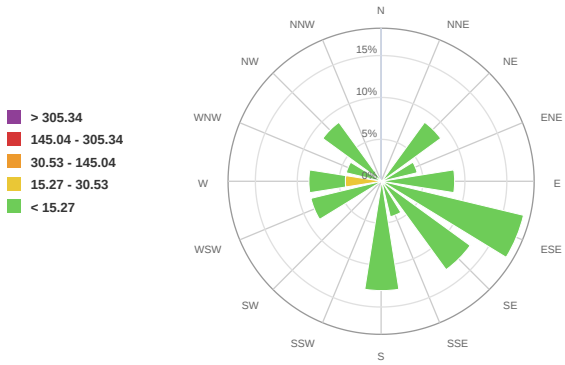
NO_2 (µg/m³)



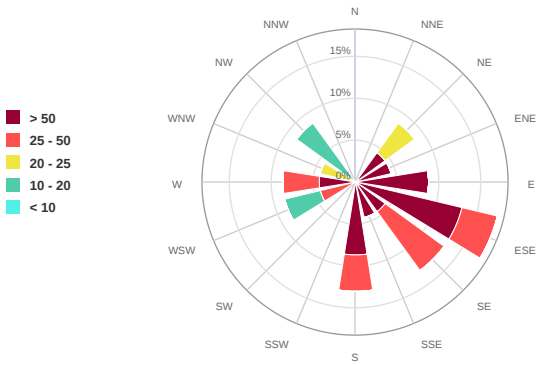
O_3 (µg/m³)



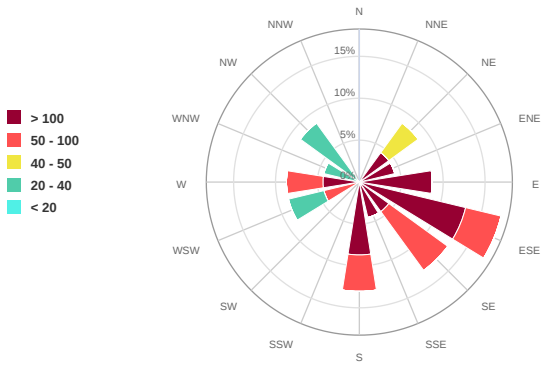
SO_2 (ppb)



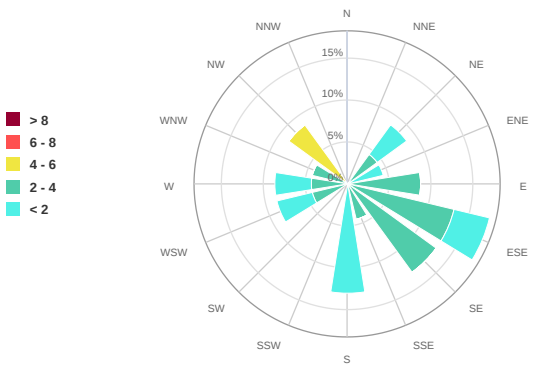
$PM_{2.5}$ (µg/m³)



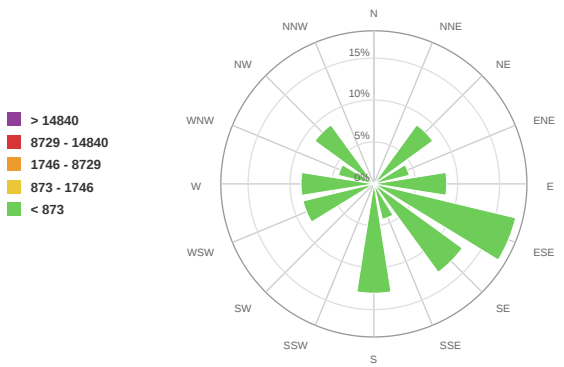
PM_{10} (µg/m³)



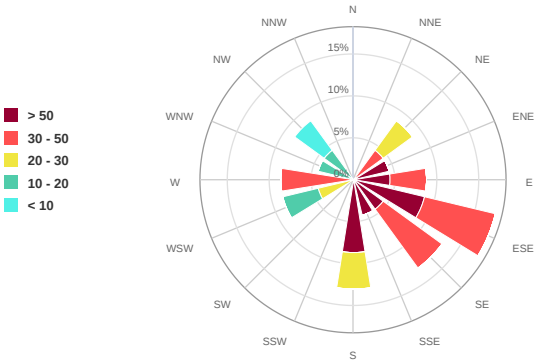
Wind Speed (m/s)



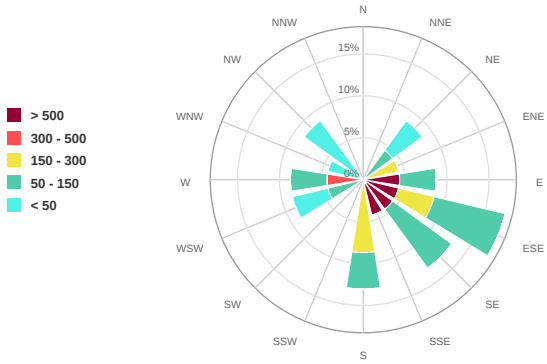
CO (ppb)



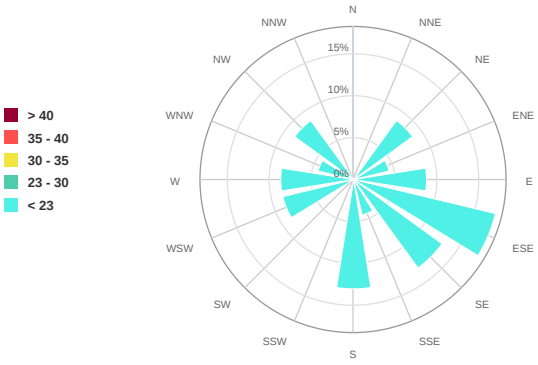
PM₁ (µg/m³)



PM₁₀₀ (µg/m³)



Temperature (°C)



Alerte

No alerts for the selected date and time range

Insights

- 04/12/2025, 23:59 **EAQI Peaks in Early December**: EAQI reached extremely poor levels in early December, peaking at 462 on December 4th. This indicates a severe air quality degradation during that period.
- 27/12/2025, 23:59 **High $PM_{2.5}$ drives poor air quality**: Extremely poor EAQI readings correlate strongly with high $PM_{2.5}$ levels, exceeding 100 µg/m³ on several occasions. $PM_{2.5}$ reached 230.76 µg/m³ on December 4th.
- 27/12/2025, 23:59 **PM_{10} spikes during extremely poor air quality**: Extremely poor air quality is linked with high PM_{10}, with levels rising to 799.02 µg/m³ on December 4th. Elevated PM_{10} contributes significantly to poor EAQI scores.
- 27/12/2025, 23:59 **Ozone Levels Consistently Low**: O_3 levels remain consistently below 27 µg/m³, falling within 'Good' to 'Fair' ranges, irrespective of EAQI fluctuations. Zero readings were recorded on several days.
- 27/12/2025, 23:59 **NO_2 Levels Relatively Stable**: NO_2 levels generally stay within the 'Good' to 'Moderate' range. There are some fluctuations, but extreme spikes are not observed, with max around 117.57 µg/m³.
- 27/12/2025, 23:59 **SO_2 Levels within Good Range**: SO_2 remains relatively low and consistent, staying well within the 'Good' range (below 38 ppb) throughout the recorded period. The highest level reaches 17.02 ppb.
- 30/12/2025, 23:59 **Wind Speed Variation and Air Quality**: Wind speed fluctuates between 0.51 m/s and 5.41 m/s. Higher wind speeds may correlate with periods of improved, but still relatively poor air quality.
- 30/12/2025, 23:59 **Relative Humidity Consistently High**: Relative humidity remains consistently high, generally above 80%, and often exceeding 90%. It's unclear what impact this has on the other pollutants.
- 30/12/2025, 23:59 **Temperature Variation During the Month**: Temperature fluctuates, ranging from a low of -0.37°C to a high of 8.5°C. Air quality worsens with dropping temperatures during this month.
- 30/12/2025, 23:59 **EAQI improves towards end of the month**: EAQI shows improvement towards the end of December, with readings falling into the 'Fair' category, suggesting a decrease in overall pollution.
- 30/12/2025, 23:59 **CO (ppb) Variation Impact on Air Quality**: CO (ppb) fluctuates between 338.13 ppb and 714.89 ppb. High levels of CO contribute to 'Extremely Poor' to 'Poor' AQI Category.
- 11/12/2025, 23:59 **Data Gaps present**: Data from December 5th to December 11th is completely missing. This hinders a continuous analysis of the air quality trends for the month.
- 30/12/2025, 23:59 **PM_1 level Tracking**: PM_1 levels varies from 9.47 µg/m³ to 80.73 µg/m³. This variation closely monitors other air quality parameters.
- 30/12/2025, 23:59 **PM_{100} level Tracking**: PM_{100} levels varies from 25.15 µg/m³ to 1513.14 µg/m³. This parameter has extreme values as well as a wide range.
- 30/12/2025, 23:59 **Wind Direction and Pollution Correlation**: Wind direction varies, with notable concentrations between 48 and 189 degrees. Prevailing wind may be carrying pollutants to measurement site.
- 30/12/2025, 23:59 **Battery Levels Maintained**: Battery levels of the monitor, when available, remain at or close to 100%, ensure device consistently operational, although a day showed 0.92%.
- 30/12/2025, 23:59 **Pressure Fluctuations**: Pressure levels range from 1006.87 to 1022.21 HPa, influencing dispersion of pollutants and impacting air quality parameter levels.
- 15/12/2025, 23:59 **EAQI Fluctuation during mid-December**: EAQI values fluctuates from Dec 12 to Dec 15. There is a variation between Moderate and Poor Category during this period.
- 30/12/2025, 23:59 **SO_2 stable throughout the month**: SO_2 level is mostly stable and it varies from 5.25 ppb to 17.02 ppb. It contributes towards enhancing air quality.
- 30/12/2025, 23:59 **CO levels and EAQI categories relationship**: CO varies and has shown impact on AQI categories. CO value is around 350 ppb when AQI category is either Fair/Moderate.
- 30/12/2025, 23:59 **Lowest O_3 and EAQI levels relationship**: Lowest O_3 level (0 ppb) mostly contributes when AQI values are either Poor/Extremely poor.
- 30/12/2025, 23:59 **NO_2 and Wind impact on AQI**: NO_2 and wind speeds impact on air quality of December. NO_2 is high but wind direction helps in dispersing pollutants in the environment.
- 30/12/2025, 23:59 **PM_1 and AQI Relationship**: The fluctuation in PM_1 has a strong correlation with the overall AQI. Higher PM_1 contribute to the degradation of air quality.
- 30/12/2025, 23:59 **Pressure and EAQI Anti-Correlation**: High Pressure days correlate with Fair/Moderate EAQI. Indicates relationship between atmospheric conditions and pollutant concentration.
- 30/12/2025, 23:59 **Humidity's Impact on $PM_{2.5}$**: High humidity levels throughout the month may contribute to the persistence of high $PM_{2.5}$ concentrations, as moisture can trap particulate matter.
- 30/12/2025, 23:59 **Correlation between PM_{10} and $PM_{2.5}$**: The high correlation between PM_{10} and $PM_{2.5}$ suggests common sources or formation processes for these pollutants. Monitoring can reduce the impact.
- 30/12/2025, 23:59 **EAQI and $PM_{2.5}$ Relationship**: EAQI values closely follow $PM_{2.5}$ concentration, this suggest $PM_{2.5}$ is the major contributor to pollution.

- 30/12/2025, 23:59 **CO (ppb) shows lower AQI**: When CO(ppb) is about 350 ppb, EAQI values are in Fair range. This suggests that low CO contributes towards improving air quality.
- 30/12/2025, 23:59 **Impact of Wind on PM_{10}**: High wind speeds do not necessarily correlate with lower PM_{10} levels. It needs to be investigated if wind speed values are correct.
- 30/12/2025, 23:59 **Impact of Pressure on PM_{10}**: High Pressure mostly contributes when PM_{10} level is low as it shows fair air quality during this period.

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	401	13.66	6.88	9.93	84.45	154.96
02/12/2025, 23:59	449	12.61	7.95	10.24	198.22	659.36
03/12/2025, 23:59	327	14.25	4.83	11.43	56.83	103.99
04/12/2025, 23:59	462	9.8	8.64	12.67	230.76	799.02
05/12/2025, 23:59						
06/12/2025, 23:59						
07/12/2025, 23:59						
08/12/2025, 23:59						
09/12/2025, 23:59						
10/12/2025, 23:59						
11/12/2025, 23:59						
12/12/2025, 23:59	255	62.48	0	17.02	38.68	75.16
13/12/2025, 23:59	207	29.94	0	11.49	26.66	52.76
14/12/2025, 23:59	224	24.8	0.26	10.1	30.97	60.45
15/12/2025, 23:59	265	22.5	2.58	9.1	41.21	80.42
16/12/2025, 23:59	436	18.25	3.75	11.47	182.6	528.07
17/12/2025, 23:59	420	25.55	0	10.65	127.36	355.83
18/12/2025, 23:59	403	32.37	0	9.21	100.06	183.67
19/12/2025, 23:59	294	32.77	0	9.57	48.54	91.86
20/12/2025, 23:59	405	27.65	0	10.59	102.48	205.25
21/12/2025, 23:59	407	21.48	2.39	8.18	113.34	227.51
22/12/2025, 23:59	237	17.17	6.56	7.93	34.32	64.9
23/12/2025, 23:59	352	16	5.83	9.33	62.87	126.21
24/12/2025, 23:59	338	15.81	3.11	11.78	59.53	114.21
25/12/2025, 23:59	156	13.93	8.04	8.82	22.79	41.29
26/12/2025, 23:59	101	11.23	13.36	7.56	20.07	36.62
27/12/2025, 23:59	411	10.12	10.74	11.02	98.99	260.8
28/12/2025, 23:59	65	26.13	4.75	9.51	12.92	24.56
29/12/2025, 23:59	81	9.64	17.63	5.25	16.21	31.13
30/12/2025, 23:59	53	15.86	17.82	7.32	10.65	20.8

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	1.39	173.69	100	493.25	89.24	65.94	168.95	1012.22	5.79
02/12/2025, 23:59	2.28	111.36	100	457.51	92.19	71.14	1034.71	1013.44	5.08
03/12/2025, 23:59	3.18	122.13	74.18	446.82	93.35	49.08	114.99	1010.6	4.87
04/12/2025, 23:59	2.82	126.62	0.92	443.01	94.6	73.34	1513.14	1009.78	3.47
05/12/2025, 23:59									
06/12/2025, 23:59									
07/12/2025, 23:59									
08/12/2025, 23:59									
09/12/2025, 23:59									
10/12/2025, 23:59									
11/12/2025, 23:59									
12/12/2025, 23:59	0.51	265.67	84.18	663.09	93.43	31.36	85.74	1019.49	4.46
13/12/2025, 23:59	0.62	189.63	100	411.65	89.77	21.87	62.7	1021.95	4.28
14/12/2025, 23:59	0.74	246.83	100	401.95	92.05	26.22	71.31	1022.21	3.35
15/12/2025, 23:59	2.15	127.72	100	389.75	92.38	34.72	94.18	1021.14	2.9
16/12/2025, 23:59	2.4	83.75	100	424.74	94.56	67.19	943.5	1018.02	0.3
17/12/2025, 23:59	2.72	148.49	100	550.6	90.68	55.94	621.47	1017.31	2.47
18/12/2025, 23:59	1.55	181.59	100	714.89	88.53	80.73	200.19	1020.99	6.18
19/12/2025, 23:59	2.35	140.07	100	511.7	86.67	45.08	105.44	1018.73	8.5
20/12/2025, 23:59	1.07	110.31	100	532.69	89.91	71.84	261.59	1013.83	7.06
21/12/2025, 23:59	1.9	60.72	100	394.88	90.12	62.14	250.47	1012.72	6.95
22/12/2025, 23:59	2.22	104.22	100	382.51	91.43	30.83	72.93	1012.88	4.91
23/12/2025, 23:59	2.61	95.32	100	406.32	92.33	42.94	145.02	1010.63	4.1
24/12/2025, 23:59	3.08	48.06	100	459.74	93.11	46.7	130.82	1011.42	3.62
25/12/2025, 23:59	1.82	51.62	100	384.4	88.85	21.14	46.24	1020.77	4.95
26/12/2025, 23:59	2.82	299.21	100	367.52	87.01	18.66	40.75	1021.89	2.79
27/12/2025, 23:59	2.16	261.54	100	439.25	93.59	48.89	407.91	1018.52	-0.15
28/12/2025, 23:59	5.41	308.33	100	351.36	81.68	11.64	28.51	1011.93	1.59
29/12/2025, 23:59	3.9	257.89	100	397.17	82.55	14.67	36.42	1010.05	0.31
30/12/2025, 23:59	5.05	306.13	100	338.13	76.05	9.47	25.15	1006.87	-0.37