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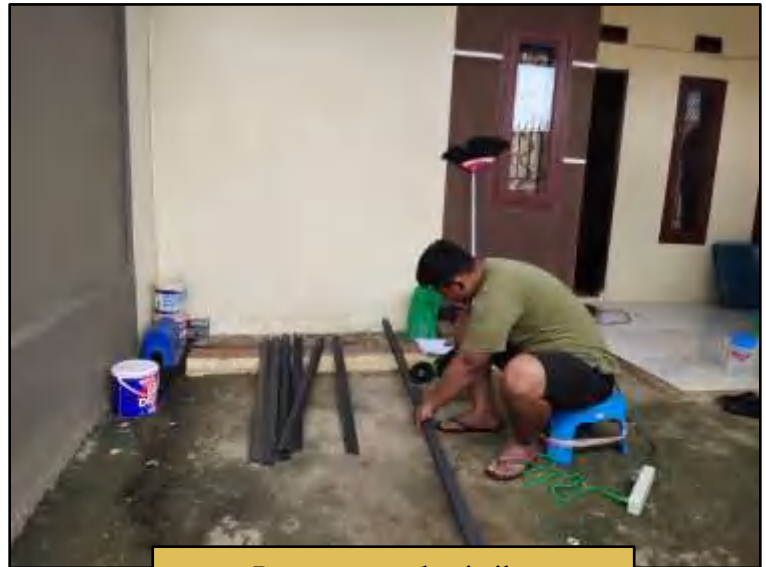
NIM : D012212013

Dokumentasi Penelitian

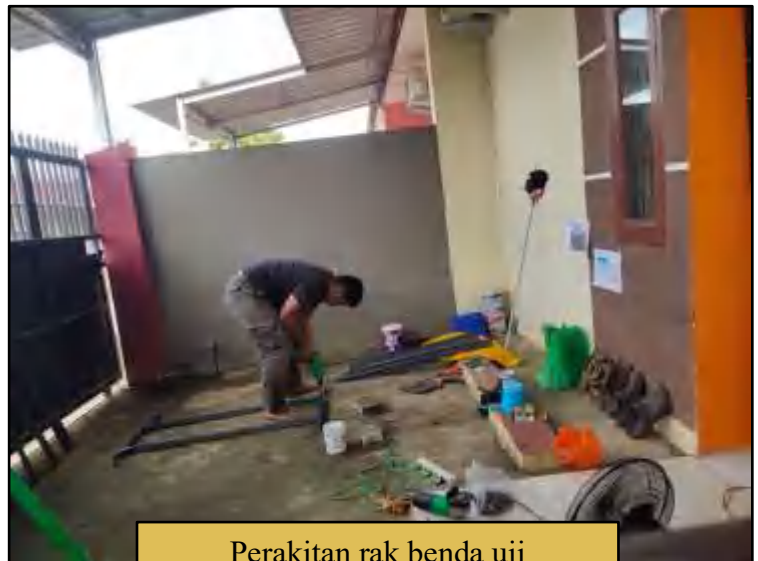
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Pembuatan Rak Benda Uji



Pemotongan besi siku



Perakitan rak benda uji





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Pembuatan Rak Benda Uji



Pengecatan rak dengan anti karat



Rak benda uji





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Pembuatan Benda Uji



Memotong benda uji
(ASTM G50)



Membersihkan benda uji
(ASTM G1)





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Menimbang berat awal benda uji (ASTM G1)

Pengujian Laju Korosi



Pemaparan benda uji dan pemasangan data logger





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Pengujian Laju Korosi



Pengambilan benda uji



Pembersihan benda uji dari korosi dengan sikat halus





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Dokumentasi Penelitian

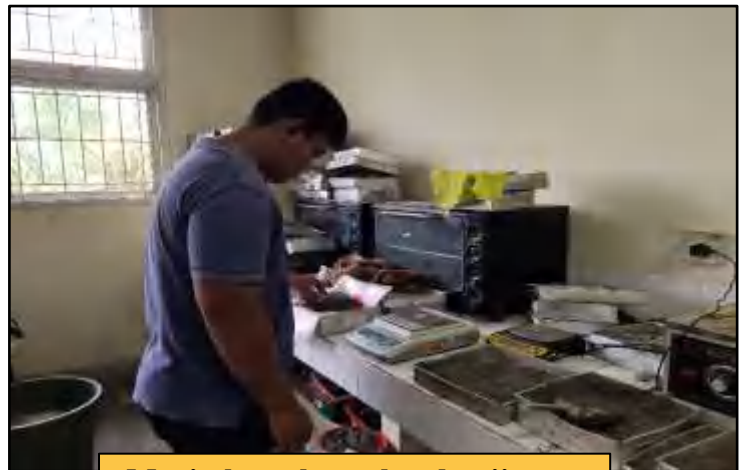
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Pembersihan benda uji dari korosi dengan cairan HCL (ASTM G1)

Pengujian Laju Korosi



Menimbang berat benda uji yang sudah dibersihkan dan di analisis





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Dan Kota Palu

Pemaparan Benda Uji



Kota Makassar



Kota Palu





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Tabel 1 Data *Realtime* Suhu dan Kelembapan Bulan Desember 2023 Kota Makassar

| Tanggal | Tn | Tx | Tavg | RH_avg |
|-------------|------|------|------|--------|
| 01-12-2023 | 25,6 | 31,2 | 26,9 | 80 |
| 02-12-2023 | 24,7 | 30,7 | 27,9 | 82 |
| 03-12-2023 | 25,1 | 31,1 | 27,5 | 83 |
| 04-12-2023 | 24,9 | 32,3 | 26,7 | 85 |
| 05-12-2023 | 23,7 | 31,2 | 26,2 | 82 |
| 06-12-2023 | 23,5 | 29,9 | 26,8 | 84 |
| 07-12-2023 | 24,3 | 31,5 | 27,0 | 89 |
| 08-12-2023 | 24,5 | 30,6 | 25,5 | 84 |
| 09-12-2023 | 23,3 | 29,7 | 26,3 | 82 |
| 10-12-2023 | 24,0 | 31,5 | 27,6 | 85 |
| 11-12-2023 | 25,2 | 31,6 | 26,3 | 88 |
| 12-12-2023 | 24,3 | 29,7 | 25,1 | 90 |
| 13-12-2023 | 23,4 | 30,3 | 25,2 | 88 |
| 14-12-2023 | 23,4 | 27,3 | 25,6 | 91 |
| 15-12-2023 | 24,6 | 28,9 | 25,9 | 90 |
| 16-12-2023 | 24,6 | 29,1 | 25,4 | 89 |
| 17-12-2023 | 23,7 | 28,1 | 25,3 | 85 |
| 18-12-2023 | 23,8 | 29,0 | 27,0 | 85 |
| 19-12-2023 | 24,8 | 29,5 | 26,8 | 90 |
| 20-12-2023 | 23,2 | 25,1 | 23,9 | 86 |
| 21-12-2023 | 23,0 | 28,1 | 26,0 | 83 |
| 22-12-2023 | 23,7 | 30,9 | 26,7 | 84 |
| 23-12-2023 | 23,8 | 29,0 | 25,9 | 84 |
| 24-12-2023 | 23,3 | 29,0 | 27,1 | 82 |
| 25-12-2023 | 24,5 | 32,4 | 28,4 | 88 |
| 26-12-2023 | 26,2 | 28,4 | 24,9 | 80 |
| 27-12-2023 | 22,6 | 31,5 | 27,8 | 83 |
| 28-12-2023 | 24,3 | 30,5 | 27,5 | 88 |
| 29-12-2023 | 23,9 | 25,4 | 24,0 | 84 |
| 30-12-2023 | 23,2 | 30,8 | 26,6 | 86 |
| | 23,9 | 30,2 | 26,8 | 82 |
| Rata - rata | | | 26,3 | 85 |



endah
t-rata

Tx
Rh-avg

: Suhu Tertinggi
: Kelembapan rata-rata



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Makassar Dan Kota Palu

Tabel 2 Data *Realtime* Suhu dan Kelembapan Bulan Januari 2024 Kota Makassar

| Tanggal | Tn | Tx | Tavg | RH_avg |
|-------------|------|------|------|--------|
| 01-01-2024 | 24,2 | 32 | 28 | 83 |
| 02-01-2024 | 24,8 | 30,4 | 26,1 | 80 |
| 03-01-2024 | 23,5 | 30,6 | 26,4 | 82 |
| 04-01-2024 | 24,6 | 30,7 | 26,4 | 83 |
| 05-01-2024 | 24,1 | 30,4 | 27 | 85 |
| 06-01-2024 | 24,7 | 31 | 26,6 | 82 |
| 07-01-2024 | 23,9 | 30,9 | 27,1 | 84 |
| 08-01-2024 | 24,2 | 31,8 | 27,9 | 89 |
| 09-01-2024 | 25,3 | 29,5 | 26 | 84 |
| 10-01-2024 | 24,2 | 31 | 26,2 | 82 |
| 11-01-2024 | 23,1 | 30,6 | 27,9 | 87 |
| 12-01-2024 | 25,3 | 28,6 | 26,8 | 92 |
| 13-01-2024 | 24,4 | 31,2 | 27,1 | 90 |
| 14-01-2024 | 25,1 | 31,7 | 28,4 | 90 |
| 15-01-2024 | 25,5 | 30,6 | 28 | 91 |
| 16-01-2024 | 25,7 | 30,3 | 28,2 | 90 |
| 17-01-2024 | 25,9 | 31,2 | 25,5 | 92 |
| 18-01-2024 | 24,2 | 30,9 | 27,1 | 85 |
| 19-01-2024 | 24,1 | 31,4 | 27,5 | 85 |
| 20-01-2024 | 24,4 | 30,9 | 27,5 | 90 |
| 21-01-2024 | 23,9 | 31,2 | 28,2 | 86 |
| 22-01-2024 | 24,6 | 31,8 | 28,5 | 83 |
| 23-01-2024 | 25,4 | 30,4 | 26,9 | 88 |
| 24-01-2024 | 24,1 | 30,5 | 27,2 | 84 |
| 25-01-2024 | 24,8 | 32,3 | 28,5 | 82 |
| 26-01-2024 | 25 | 31,1 | 27,7 | 88 |
| 27-01-2024 | 25,6 | 31,3 | 28,1 | 80 |
| 28-01-2024 | 25,2 | 32,1 | 27,4 | 83 |
| 29-01-2024 | 24,6 | 31,3 | 28,5 | 92 |
| 30-01-2024 | 25,9 | 31,5 | 27,3 | 81 |
| 31-01-2024 | 25,1 | 31,5 | 28,1 | 86 |
| Rata - rata | | | 27,4 | 86 |



endah
t-rata

Tx
Rh-avg

: Suhu Tertinggi
: Kelembapan rata-rata



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Makassar Dan Kota Palu

Tabel 3 Data *Realtime* Suhu dan Kelembapan Bulan Februari 2024 Kota Makassar

| Tanggal | Tn | Tx | Tavg | RH_avg |
|------------|------|------|------|--------|
| 01-02-2024 | 25,6 | 31,2 | 26,9 | 86 |
| 02-02-2024 | 24,7 | 30,7 | 27,9 | 92 |
| 03-02-2024 | 25,1 | 31,1 | 27,5 | 90 |
| 04-02-2024 | 24,9 | 32,3 | 26,7 | 88 |
| 05-02-2024 | 23,7 | 31,2 | 26,2 | 86 |
| 06-02-2024 | 23,5 | 29,9 | 26,8 | 87 |
| 07-02-2024 | 24,3 | 31,5 | 23,4 | 85 |
| 08-02-2024 | 24,5 | 30,6 | 25,5 | 80 |
| 09-02-2024 | 23,3 | 29,7 | 24,3 | 87 |
| 10-02-2024 | 24,0 | 31,5 | 26,1 | 90 |
| 11-02-2024 | 25,2 | 31,6 | 24,3 | 84 |
| 12-02-2024 | 24,3 | 29,7 | 23,1 | 89 |
| 13-02-2024 | 23,4 | 30,3 | 23,2 | 85 |
| 14-02-2024 | 23,4 | 27,3 | 22,6 | 80 |
| 15-02-2024 | 24,6 | 28,9 | 24,9 | 83 |
| 16-02-2024 | 24,6 | 29,1 | 23,4 | 81 |
| 17-02-2024 | 23,7 | 28,1 | 23,5 | 88 |
| 18-02-2024 | 23,8 | 29,0 | 26,4 | 80 |
| 19-02-2024 | 24,8 | 29,5 | 24,7 | 77 |
| 20-02-2024 | 23,2 | 25,1 | 22,8 | 76 |
| 21-02-2024 | 23,0 | 28,1 | 25,9 | 72 |
| 22-02-2024 | 23,7 | 30,9 | 24,6 | 77 |
| 23-02-2024 | 23,8 | 29,0 | 24,3 | 84 |
| 24-02-2024 | 23,3 | 29,0 | 27,1 | 78 |
| 25-02-2024 | 24,5 | 32,4 | 27,4 | 79 |
| 26-02-2024 | 26,2 | 28,4 | 23,9 | 81 |
| 27-02-2024 | 22,6 | 33,0 | 26,8 | 81 |
| 28-02-2024 | 24,3 | 30,5 | 26,7 | 80 |
| 29-02-2024 | 23,9 | 25,4 | 24,0 | 80 |
| Rata-rata | | | 25,2 | 83 |

Keterangan :

Tn : Suhu terendah
Tavg : Suhu rata-rata

Tx : Suhu Tertinggi

Rh-avg : Kelembapan rata-rata





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Tabel 4 Data *Realtime* Suhu dan Kelembapan Bulan Maret 2024 Kota Makassar

| Tanggal | Tn | Tx | Tavg | RH_avg |
|-------------|------|------|------|--------|
| 01-03-2024 | 23,4 | 32,1 | 25,0 | 77 |
| 02-03-2024 | 24,7 | 32,2 | 26,3 | 81 |
| 03-03-2024 | 24,6 | 31,6 | 25,5 | 78 |
| 04-03-2024 | 25,2 | 32,2 | 25,4 | 76 |
| 05-03-2024 | 24,3 | 29,2 | 24,6 | 82 |
| 06-03-2024 | 23,9 | 32,2 | 25,7 | 83 |
| 07-03-2024 | 26,4 | 32,6 | 27,1 | 77 |
| 08-03-2024 | 25,8 | 31,6 | 26,2 | 85 |
| 09-03-2024 | 26,0 | 28,6 | 26,5 | 88 |
| 10-03-2024 | 25,5 | 32,0 | 27,3 | 87 |
| 11-03-2024 | 25,4 | 31,7 | 26,8 | 84 |
| 12-03-2024 | 25,7 | 31,7 | 25,8 | 80 |
| 13-03-2024 | 26,1 | 31,8 | 26,9 | 80 |
| 14-03-2024 | 25,7 | 32,0 | 26,3 | 81 |
| 15-03-2024 | 26,0 | 32,3 | 27,1 | 80 |
| 16-03-2024 | 25,6 | 32,0 | 26,1 | 83 |
| 17-03-2024 | 25,1 | 33,5 | 26,3 | 77 |
| 18-03-2024 | 25,4 | 33,4 | 26,7 | 80 |
| 19-03-2024 | 24,0 | 32,0 | 25,6 | 78 |
| 20-03-2024 | 24,0 | 31,7 | 25,5 | 83 |
| 21-03-2024 | 25,1 | 31,5 | 25,7 | 87 |
| 22-03-2024 | 26,1 | 31,5 | 27,2 | 85 |
| 23-03-2024 | 25,0 | 31,8 | 26,4 | 82 |
| 24-03-2024 | 25,3 | 32,7 | 26,4 | 72 |
| 25-03-2024 | 25,8 | 31,6 | 26,7 | 79 |
| 26-03-2024 | 24,8 | 33,0 | 26,3 | 73 |
| 27-03-2024 | 25,7 | 32,3 | 26,3 | 76 |
| 28-03-2024 | 25,5 | 32,8 | 25,8 | 80 |
| 29-03-2024 | 25,0 | 30,5 | 25,3 | 82 |
| 30-03-2024 | 26,3 | 33,4 | 27,2 | 81 |
| | 25,6 | 33,1 | 26,9 | 82 |
| Rata - rata | | | 26,2 | 81 |



endah
t-rata

Tx
Rh-avg

: Suhu Tertinggi
: Kelembapan rata-rata



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Makassar Dan Kota Palu

Tabel 5 Data *Realtime* Suhu dan Kelembapan Bulan Desember 2023 Kota Palu

| Tanggal | Tn | Tx | Tavg | RH_avg |
|------------|-------------|------|------|--------|
| 01-12-2023 | 22,8 | 35,6 | 30,0 | 89 |
| 02-12-2023 | 23,2 | 33,8 | 29,4 | 92 |
| 03-12-2023 | 23,6 | 34,4 | 29,6 | 92 |
| 04-12-2023 | 23,4 | 34,8 | 29,7 | 90 |
| 05-12-2023 | 24,0 | 34,8 | 29,5 | 90 |
| 06-12-2023 | 24,2 | 34,8 | 30,2 | 86 |
| 07-12-2023 | 24,0 | 35,0 | 30,6 | 85 |
| 08-12-2023 | 24,0 | 33,0 | 30,0 | 88 |
| 09-12-2023 | 24,6 | 32,6 | 28,5 | 93 |
| 10-12-2023 | 22,4 | 34,8 | 27,9 | 97 |
| 11-12-2023 | 22,2 | 33,2 | 29,6 | 89 |
| 12-12-2023 | 23,6 | 35,0 | 30,5 | 82 |
| 13-12-2023 | 23,8 | 36,0 | 30,3 | 86 |
| 14-12-2023 | 24,2 | 34,0 | 29,6 | 88 |
| 15-12-2023 | 24,8 | 34,8 | 30,3 | 84 |
| 16-12-2023 | 25,2 | 34,8 | 30,5 | 84 |
| 17-12-2023 | 25,4 | 34,0 | 29,9 | 88 |
| 18-12-2023 | 26,0 | 33,0 | 29,3 | 89 |
| 19-12-2023 | 24,0 | 32,8 | 29,8 | 88 |
| 20-12-2023 | 25,6 | 35,0 | 30,7 | 85 |
| 21-12-2023 | 26,0 | 35,6 | 30,9 | 81 |
| 22-12-2023 | 26,0 | 36,0 | 30,6 | 80 |
| 23-12-2023 | 25,4 | 35,2 | 29,2 | 88 |
| 24-12-2023 | 24,2 | 36,4 | 29,7 | 87 |
| 25-12-2023 | 24,8 | 34,8 | 30,0 | 84 |
| 26-12-2023 | 24,2 | 33,0 | 28,5 | 90 |
| 27-12-2023 | 24,0 | 35,6 | 31,0 | 79 |
| 28-12-2023 | 25,2 | 36,0 | 30,9 | 83 |
| 29-12-2023 | 25,6 | 36,6 | 31,0 | 87 |
| 30-12-2023 | 25,4 | 35,2 | 31,8 | 84 |
| | 25,8 | 34,8 | 32,0 | 90 |
| | Rata - rata | | 30,1 | 87 |



endah
t-rata

Tx
Rh-avg

: Suhu Tertinggi
: Kelembapan rata-rata



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Makassar Dan Kota Palu

Tabel 6 Data *Realtime* Suhu dan Kelembapan Bulan Januari 2024 Kota Palu

| Tanggal | Tn | Tx | Tavg | RH_avg |
|-------------|------|------|------|--------|
| 01-01-2024 | 25,2 | 35,8 | 34,8 | 84 |
| 02-01-2024 | 25,8 | 35,4 | 32,7 | 90 |
| 03-01-2024 | 25,0 | 34,6 | 33,7 | 88 |
| 04-01-2024 | 25,0 | 36,0 | 34,1 | 84 |
| 05-01-2024 | 25,4 | 35,6 | 31,9 | 91 |
| 06-01-2024 | 24,0 | 32,8 | 32,7 | 87 |
| 07-01-2024 | 24,8 | 34,0 | 33,2 | 86 |
| 08-01-2024 | 24,8 | 33,4 | 33,0 | 87 |
| 09-01-2024 | 24,6 | 32,0 | 32,9 | 86 |
| 10-01-2024 | 24,8 | 33,4 | 33,7 | 88 |
| 11-01-2024 | 24,8 | 35,2 | 33,7 | 86 |
| 12-01-2024 | 24,2 | 35,6 | 32,7 | 85 |
| 13-01-2024 | 24,2 | 32,8 | 31,5 | 91 |
| 14-01-2024 | 23,6 | 31,0 | 32,3 | 87 |
| 15-01-2024 | 24,4 | 32,8 | 31,8 | 89 |
| 16-01-2024 | 23,8 | 33,2 | 31,8 | 90 |
| 17-01-2024 | 24,2 | 31,6 | 32,2 | 85 |
| 18-01-2024 | 23,8 | 34,4 | 33,4 | 88 |
| 19-01-2024 | 25,6 | 30,2 | 31,0 | 90 |
| 20-01-2024 | 24,4 | 31,4 | 32,2 | 88 |
| 21-01-2024 | 24,2 | 32,0 | 32,3 | 89 |
| 22-01-2024 | 24,0 | 34,2 | 32,5 | 86 |
| 23-01-2024 | 23,4 | 33,6 | 32,4 | 85 |
| 24-01-2024 | 22,8 | 28,4 | 30,2 | 93 |
| 25-01-2024 | 22,8 | 32,6 | 32,2 | 87 |
| 26-01-2024 | 23,4 | 35,8 | 32,2 | 84 |
| 27-01-2024 | 23,4 | 32,6 | 32,1 | 84 |
| 28-01-2024 | 24,0 | 31,6 | 32,5 | 88 |
| 29-01-2024 | 24,0 | 32,0 | 32,7 | 87 |
| 30-01-2024 | 24,8 | 33,2 | 33,0 | 88 |
| 31-01-2024 | 25,0 | 32,8 | 32,8 | 92 |
| Rata - rata | | | 32,6 | 88 |



Tn : Suhu Rendah
Tn-avg : Suhu rata-rata

Tx : Suhu Tertinggi
Rh-avg : Kelembapan rata-rata

Tavg : Suhu Rata-rata
RH_avg : Kelembapan rata-rata



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Makassar Dan Kota Palu

Tabel 7 Data *Realtime* Suhu dan Kelembapan Bulan Februari 2024 Kota Palu

| Tanggal | Tn | Tx | Tavg | RH_avg |
|-------------|------|------|------|--------|
| 01-02-2024 | 26,2 | 35,4 | 30,8 | 82 |
| 02-02-2024 | 25,2 | 35,4 | 29,8 | 86 |
| 03-02-2024 | 24,4 | 35,0 | 29,5 | 88 |
| 04-02-2024 | 24,8 | 34,6 | 29,3 | 89 |
| 05-02-2024 | 25,0 | 34,6 | 29,9 | 86 |
| 06-02-2024 | 25,0 | 33,8 | 29,5 | 89 |
| 07-02-2024 | 25,4 | 33,4 | 28,7 | 90 |
| 08-02-2024 | 24,6 | 32,4 | 29,2 | 90 |
| 09-02-2024 | 25,0 | 34,0 | 29,6 | 84 |
| 10-02-2024 | 25,4 | 32,0 | 28,7 | 86 |
| 11-02-2024 | 24,6 | 36,0 | 30,7 | 77 |
| 12-02-2024 | 24,8 | 36,2 | 30,8 | 80 |
| 13-02-2024 | 26,6 | 33,2 | 28,5 | 90 |
| 14-02-2024 | 24,6 | 33,2 | 29,5 | 87 |
| 15-02-2024 | 25,2 | 35,4 | 30,4 | 83 |
| 16-02-2024 | 24,8 | 35,4 | 30,3 | 80 |
| 17-02-2024 | 24,8 | 35,4 | 29,8 | 82 |
| 18-02-2024 | 24,2 | 35,8 | 30,5 | 81 |
| 19-02-2024 | 24,6 | 34,2 | 30,1 | 80 |
| 20-02-2024 | 24,8 | 35,4 | 30,7 | 78 |
| 21-02-2024 | 25,0 | 35,2 | 29,5 | 84 |
| 22-02-2024 | 25,0 | 35,4 | 30,1 | 82 |
| 23-02-2024 | 25,8 | 36,6 | 31,0 | 78 |
| 24-02-2024 | 25,0 | 37,0 | 30,4 | 84 |
| 25-02-2024 | 24,2 | 35,6 | 30,5 | 84 |
| 26-02-2024 | 24,6 | 35,2 | 31,0 | 86 |
| 27-02-2024 | 24,6 | 34,8 | 30,0 | 88 |
| 28-02-2024 | 25,2 | 32,2 | 28,4 | 90 |
| 29-02-2024 | 24,8 | 32,0 | 28,5 | 90 |
| Rata - rata | | | 29,8 | 85 |

Keterangan :

Tn : Suhu terendah

Tx : Suhu Tertinggi

Tavg : Suhu rata-rata

Rh-avg : Kelembapan rata-rata





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Tabel 8 Data *Realtime* Suhu dan Kelembapan Bulan Maret 2024 Kota Palu

| Tanggal | Tn | Tx | Tavg | RH_avg |
|-------------|------|------|------|--------|
| 01-03-2024 | 24,6 | 34,6 | 28,8 | 77 |
| 02-03-2024 | 24,6 | 35,6 | 30,0 | 71 |
| 03-03-2024 | 25,2 | 35,0 | 29,7 | 72 |
| 04-03-2024 | 25,8 | 34,8 | 29,0 | 78 |
| 05-03-2024 | 24,8 | 32,2 | 28,0 | 82 |
| 06-03-2024 | 24,8 | 34,2 | 28,8 | 75 |
| 07-03-2024 | 24,8 | 30,2 | 27,7 | 85 |
| 08-03-2024 | 25,6 | 35,2 | 28,9 | 80 |
| 09-03-2024 | 25,8 | 27,8 | 26,1 | 93 |
| 10-03-2024 | 24,2 | 33,0 | 27,8 | 79 |
| 11-03-2024 | 24,2 | 33,8 | 27,7 | 84 |
| 12-03-2024 | 24,2 | 33,8 | 27,3 | 85 |
| 13-03-2024 | 25,0 | 33,8 | 28,8 | 78 |
| 14-03-2024 | 25,0 | 34,4 | 29,1 | 77 |
| 15-03-2024 | 25,4 | 32,0 | 27,0 | 84 |
| 16-03-2024 | 23,2 | 34,2 | 29,4 | 77 |
| 17-03-2024 | 26,0 | 34,4 | 28,6 | 81 |
| 18-03-2024 | 25,6 | 34,6 | 28,6 | 81 |
| 19-03-2024 | 25,0 | 32,8 | 28,6 | 81 |
| 20-03-2024 | 25,2 | 33,6 | 28,7 | 81 |
| 21-03-2024 | 26,1 | 33,8 | 28,4 | 81 |
| 22-03-2024 | 25,2 | 31,6 | 27,9 | 86 |
| 23-03-2024 | 25,0 | 34,2 | 29,1 | 80 |
| 24-03-2024 | 25,0 | 33,6 | 29,0 | 80 |
| 25-03-2024 | 25,8 | 34,0 | 28,6 | 82 |
| 26-03-2024 | 25,0 | 34,4 | 28,7 | 82 |
| 27-03-2024 | 25,0 | 34,0 | 28,9 | 79 |
| 28-03-2024 | 24,8 | 34,0 | 29,4 | 75 |
| 29-03-2024 | 24,8 | 34,4 | 28,8 | 80 |
| 30-03-2024 | 25,8 | 33,4 | 29,1 | 79 |
| 31-03-2024 | 26,2 | 32,7 | 28,9 | 80 |
| Rata - rata | | | 28,6 | 80 |



Tn : Suhu Rendah
Tn-rata : Suhu Rendah rata-rata

Tx : Suhu Tertinggi
Rh-avg : Kelembapan rata-rata

Tx : Suhu Tertinggi
Rh-avg : Kelembapan rata-rata