

**LAMPIRAN SERTIFIKAT AKREDITASI LK-502-IDN (Penetapan: 18 November 2025)**  
**LABORATORIUM KALIBRASI SNI ISO/IEC 17025: 2017 (ISO/IEC 17025: 2017)**

|  |                  |
|--|------------------|
| Nama LPK : PT Solusi Prima Visitama                                | Masa Berlaku     |
| Alamat : Kalisuren Paradise Blok E2 No. 12, Kab. Bogor, Jawa Barat | 18 November 2025 |
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**KEMAMPUAN KALIBRASI DAN PENGUKURAN (CMC) LABORATORIUM KALIBRASI**

| Kelompok pengukuran        | Alat atau bahan atau standar yang dikalibrasi atau diukur   | Rentang ukur    | Ketidakpastian yang diperluas* | Metode kalibrasi/ dokumen standar/ teknik yang digunakan | Keterangan |
|----------------------------|---|-----------------|--------------------------------|--|------------|
| Suhu dan Kelembapan        | Sensor Resistansi <i>Temperature</i>  | -20 °C ~ 150 °C | 0.18 °C                        | SNSU PK.S-05:2024<br>IK-KL-TM-01                         |            |
|                            |   | 150 °C ~ 450 °C | 0.26 °C                        |  |            |
|                            | <i>Sensor Thermocouple Temperature</i>  |                 |                                |  |            |
|                            | Type K  | -20 °C ~ 450 °C | 1.2 °C                         | ASTM E 220 - 13<br>IK-KL-TM-02                           |            |
|                            | Type S  | 450 °C ~ 650 °C | 1.4 °C                         |  |            |
|                            | Type S  | 0 °C ~ 450 °C   | 2.0 °C                         |  |            |
|                            | Type T  | 450 °C ~ 650 °C | 2.1 °C                         |  |            |
|                            | Type T  | -20 °C ~ 400 °C | 1.1 °C                         |  |            |
|                            | Temperatur Sensor dengan Indikator  |                 |                                |  |            |
|                            | <i>Termometer Digital / Analog, Hotplate, Probe Data Logger Temperature, Temperature Controller</i> |                 |                                |  |            |
|                            |   | -20 °C ~ 450 °C | 0.40 °C                        | SNSU PK.S-02 - 2021<br>IK-KL-TM-03                       |            |
|                            |   | 450 °C ~ 650 °C | 1.7 °C                         |  |            |
|                            | Temperatur Indikator untuk sensor termokopel (CJC OFF)  |                 |                                |  |            |
|                            | Type K  | -200 °C ~ 0 °C  | 0.17 °C                        |  |            |
|                            | Type K  | 0 °C ~ 1300 °C  | 0.20 °C                        |  |            |
| Type S                     | 0 °C ~ 1700 °C  | 0.25 °C         |                                |  |            |
| Type T                     | -200 °C ~ 0 °C  | 0.27 °C         |                                |  |            |
| Type T                     | 0 °C ~ 400 °C   | 0.16 °C         |                                |  |            |
| sensor termokopel (CJC ON) |   |                 |                                |  |            |
| Type K                     | -200 °C ~ 0 °C  | 0.36 °C         |                                |  |            |
| Type K                     | 0 °C ~ 1300 °C  | 0.37 °C         |                                |  |            |
| Type S                     | 0 °C ~ 1700 °C  | 0.39 °C         |                                |  |            |
| Type T                     | -200 °C ~ 0 °C  | 0.33 °C         |                                |  |            |
| Type T                     | 0 °C ~ 400 °C   | 0.24 °C         |                                |  |            |

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|                              |  |         |        |         |  |                             |
|------------------------------|--|---------|--------|---------|--|-----------------------------|
|                              | Temperatur Simulator untuk sensor termokopel (CJC OFF) |         |        |         |  |                             |
|                              | Type K   | -200 °C | ~      | 0 °C    | 0.17 °C                                  |                             |
|                              |  | 0 °C    | ~      | 1300 °C | 0.20 °C                                  |                             |
|                              | Type S   | 0 °C    | ~      | 1700 °C | 0.25 °C                                  |                             |
|                              | Type T   | -200 °C | ~      | 0 °C    | 0.27 °C                                  |                             |
|                              |  | 0 °C    | ~      | 400 °C  | 0.16 °C                                  |                             |
|                              | sensor termokopel (CJC ON)                             |         |        |         |  |                             |
|                              | Type K   | -200 °C | ~      | 0 °C    | 0.37 °C                                  |                             |
|                              |  | 0 °C    | ~      | 1300 °C | 0.38 °C                                  |                             |
|                              | Type S   | 0 °C    | ~      | 1700 °C | 0.39 °C                                  |                             |
|                              | Type T   | -200 °C | ~      | 0 °C    | 0.33 °C                                  |                             |
|                              |  | 0 °C    | ~      | 400 °C  | 0.25 °C                                  |                             |
|                              | Temperatur Indikator untuk RTD                         | -200 °C | ~      | 800 °C  | 0.15 °C                                  |                             |
|                              | Temperatur Simulator untuk RTD                         | -200 °C | ~      | 0 °C    | 0.14 °C                                  |                             |
|                              |  | 0 °C    | ~      | 800 °C  | 0.15 °C                                  |                             |
|                              | <i>Temperature Transmitter</i>                         | -20 °C  | ~      | 450 °C  | 0.46 °C                                  | DKD-R 5-1<br>IK-KL-TM-05    |
|                              | <i>Temperature + Electrical (4 mA - 20 mA)</i>         | 450 °C  | ~      | 650 °C  | 1.8 °C                                   |                             |
|                              | <i>Deep Freezer (Ultra Freezer)</i>                    | -80 °C  | ~      | -30 °C  | 1.1 °C                                   | KAN Pd-02.04<br>IK-KL-TM-06 |
|                              | <i>Freezer (Cold Storage)</i>                          | -30 °C  | ~      | -10 °C  | 0.92 °C                                  |                             |
|                              | <i>Refrigerator (Showcase/Medicool)</i>                | 0 °C    | ~      | 10 °C   | 0.60 °C                                  |                             |
|                              | <i>Inkubator</i>                                       | 20 °C   | ~      | 70 °C   | 1.6 °C                                   |                             |
|                              | <i>Oven</i>  | 80 °C   | ~      | 200 °C  | 2.1 °C                                   |                             |
|                              |  | 200 °C  | ~      | 350 °C  | 2.2 °C                                   |                             |
| <i>Temperature Dry Block</i> | -30 °C   | ~       | 450 °C | 0.61 °C | Euramet cg-13 : 2017<br>IK-KL-TM-07      |                             |
|                              | 450 °C   | ~       | 650 °C | 1.5 °C  |  |                             |
| <i>Climatic Chamber</i>      |  |         |        |         |  |                             |
| <i>Temperature</i>           | 10 °C  | ~       | 40 °C  | 0.94 °C | KAN Pd-02.04<br>DKD-R 5-7<br>IK-KL-TM-08 |                             |
| <i>Humidity</i>              | 20 %RH   | ~       | 90 %RH | 3.3 %RH |  |                             |
| <i>Liquid Bath</i>           |  |         |        |         |  |                             |
| Media Silicon / Ethanol      | -30 °C   | ~       | 30 °C  | 0.10 °C | ASTM 2488-09R14<br>IK-KL-TM-09           |                             |

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|                                |                        |        |         |          |                           |                             |                               |
|--------------------------------|------------------------|--------|---------|----------|---------------------------|-----------------------------|-------------------------------|
| Massa                          | Water                  | 30 °C  | ~       | 95 °C    | 0.11 °C                   | KAN Pd-02.04<br>IK-KL-TM-10 |                               |
|                                | Media Oil              | 95 °C  | ~       | 200 °C   | 0.28 °C                   |                             |                               |
|                                | Furnace                | 300 °C | ~       | 1450 °C  | 3.1 °C                    |                             |                               |
|                                | Thermohygrometer       |        |         |          |                           |                             | DKD-R 5-8<br>IK-KL-TM-11      |
|                                | Temperature            |        |         | 20 °C    | 0.28 °C                   |                             |                               |
|                                |                        |        |         | 30 °C    | 0.29 °C                   |                             |                               |
|                                |                        |        |         | 40 °C    | 0.30 °C                   |                             |                               |
|                                | Humidity @ 23 °C       |        |         | 40 %RH   | 2.7 %RH                   |                             |                               |
|                                |                        |        |         | 70 %RH   | 3.0 %RH                   |                             |                               |
|                                | Thermohygrometer Probe |        |         |          |                           |                             |                               |
|                                | Temperature            |        |         | 20 °C    | 0.32 °C                   |                             |                               |
|                                |                        |        |         | 30 °C    | 0.29 °C                   |                             |                               |
|                                |                        |        |         | 40 °C    | 0.30 °C                   |                             |                               |
|                                | Humidity Salt Solution |        |         | 11 %RH   | 1.6 %RH                   |                             |                               |
|                                |                        |        |         | 33 %RH   | 1.6 %RH                   |                             |                               |
|                                |                        |        |         | 75 %RH   | 1.6 %RH                   |                             |                               |
|                                | Hot Plate              | 0 °C   | ~       | 500 °C   | 4.5 °C                    |                             | KAN Pd-02.04<br>IK-KL-TM-11   |
|                                | Anak Timbangan         |        |         | 500 g    | 0.010 g                   |                             | OIML R111-2004<br>IK-KL-MS-01 |
|                                |                        |        |         | 1000 g   | 0.010 g                   |                             |                               |
|                                |                        |        |         | 2000 g   | 0.010 g                   |                             |                               |
|                                |                        |        | 5000 g  | 0.011 g  |                           |                             |                               |
|                                |                        |        | 10000 g | 0.10 g   |                           |                             |                               |
|                                |                        |        | 20000 g | 0.10 g   |                           |                             |                               |
| Timbangan (Analog dan Digital) | 1 mg                   | ~      | 2 g     | 0.093 mg | CSIRO-2010<br>IK-KL-MS-02 |                             |                               |
|                                | 2 g                    | ~      | 5 g     | 0.093 mg |                           |                             |                               |
|                                | 5 g                    | ~      | 20 g    | 0.11 mg  |                           |                             |                               |
|                                | 20 g                   | ~      | 50 g    | 0.10 mg  |                           |                             |                               |
|                                | 50 g                   | ~      | 100 g   | 0.17 mg  |                           |                             |                               |
|                                | 100 g                  | ~      | 200 g   | 0.16 mg  |                           |                             |                               |
|                                | 200 g                  | ~      | 300 g   | 0.20 mg  |                           |                             |                               |
|                                | 300 g                  | ~      | 600 g   | 1.0 mg   |                           |                             |                               |
|                                | 600 g                  | ~      | 1000 g  | 8.5 mg   |                           |                             |                               |
|                                | 1000 g                 | ~      | 2000 g  | 9.3 mg   |                           |                             |                               |
|                                | 2000 g                 | ~      | 4000 g  | 11 mg    |                           |                             |                               |
|                                | 4000 g                 | ~      | 6000 g  | 12 mg    |                           |                             |                               |
|                                | 6 kg                   | ~      | 15 kg   | 0.074 g  |                           |                             |                               |

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|                  |   |  |            |                        |                  |
|------------------|---|--|------------|------------------------|------------------|
| Tekanan          | <i>Vacuum - Pressure<br/>(Analog &amp; Digital)</i>   | 15 kg ~ 30 kg                                  | 0.10 g     | IK-KL-TK-01-rev.2:2025 |                  |
|                  |   | 30 kg ~ 100 kg                                 | 8.4 g      |                        |                  |
|                  |   | 100 kg ~ 200 kg                                | 17 g       |                        |                  |
|                  |   | 200 kg ~ 300 kg                                | 13 g       |                        |                  |
|                  |   | 300 kg ~ 400 kg                                | 70 g       |                        |                  |
|                  |   | 400 kg ~ 500 kg                                | 73 g       |                        |                  |
|                  |   | 500 kg ~ 600 kg                                | 94 g       |                        |                  |
|                  |   | 600 kg ~ 700 kg                                | 97 g       |                        |                  |
|                  |   | 700 kg ~ 800 kg                                | 0.10 kg    |                        |                  |
|                  |   | 800 kg ~ 900 kg                                | 0.10 kg    |                        |                  |
| 900 kg ~ 1000 kg | 0.11 kg   |  |            |                        |                  |
| Tekanan          | <i>Differential Pressure Gauge<br/>Manometer<br/>Vacuum Gauge<br/>Pressure Gauge<br/>(Bourdon, Recorder/Electrical)</i> | -1000 Pa ~ 1000 Pa                             | 1.4 Pa     | IK-KL-TK-02-rev.2:2025 |                  |
|                  |   | 0 mbar ~ 100 mbar                              | 0.14 mbar  |                        |                  |
|                  |   | -0.9 bar ~ 0 bar                               | 0.0062 bar |                        |                  |
|                  |   | 0 bar ~ 3 bar                                  | 0.0064 bar |                        |                  |
|                  |   | 3 bar ~ 20 bar                                 | 0.020 bar  |                        |                  |
|                  |   | 0 bar ~ 20 bar                                 | 0.052 bar  |                        |                  |
|                  |   | 0 bar ~ 3 bar                                  | 0.0064 bar |                        |                  |
|                  |   | 3 bar ~ 20 bar                                 | 0.020 bar  |                        |                  |
|                  |   | -0.9 bar ~ 0 bar                               | 0.050 bar  |                        |                  |
|                  |   | -1000 Pa ~ 1000 Pa                             | 1.6 Pa     |                        |                  |
| Tekanan          | <i>Leak Tester<br/>Diffrential Pressure Transmitter/<br/>Tranduser</i>  | 0 mbar ~ 100 mbar                              | 0.19 mbar  | IK-KL-TK-02-rev.2:2025 |                  |
|                  |   | -0.9 bar ~ 0 bar                               | 0.0064 bar |                        |                  |
|                  |   | 0 bar ~ 3 bar                                  | 0.0079 bar |                        |                  |
|                  |   | 3 bar ~ 20 bar                                 | 0.038 bar  |                        |                  |
| Aliran           | <i>Hot Wire Anemometer /<br/>Anemometer Pitot</i>   | 0 m/s ~ 1 m/s                                  | 0.078 m/s  | IK-KL-FL-01-rev.2:2025 |                  |
|                  |   | 1 m/s ~ 5 m/s                                  | 0.13 m/s   |                        |                  |
|                  |   | 5 m/s ~ 10 m/s                                 | 0.26 m/s   |                        |                  |
| Panjang          | <i>Balometer (Digital Flow Hood)<br/>Airflow Volume<br/>Outside Micrometer</i>  | 500 m <sup>3</sup> /h ~ 2000 m <sup>3</sup> /h | 3.0 %      | IK-KL-FL-04-rev.2:2025 | % = % of reading |
|                  |   | 0 mm ~ 25 mm                                   | 1.0 μm     |                        |                  |

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|                     |  |                              |  |   |                       |         |             |
|---------------------|--|------------------------------|--|---|-----------------------|---------|-------------|
|                     |  | 25 mm ~ 50 mm                | 1.1 μm   |   |                       |         |             |
|                     |  | 50 mm ~ 75 mm                | 1.1 μm   |   |                       |         |             |
|                     |  | 75 mm ~ 100 mm               | 1.2 μm   |   |                       |         |             |
| Kelistrikan         | <i>Caliper (Vernier/Analog/Digital)</i><br><i>Outside dan Inside</i> | 0 mm ~ 300 mm                | 14 μm  | SNSU PK.P-02 : 2020<br>IK-KL-DM-02<br>IK-KL-EL-01 |                       |         |             |
|                     |  | <i>Gauss Meter</i>           | 100 mT   |   | 2.1 mT                |         |             |
|                     |  |                              | 500 mT   |   | 2.7 mT                |         |             |
| Waktu dan Frekuensi | Tachometer Non Kontak  | 1000 mT                      | 6.2 mT   | IK-KL-TF-01                                       |                       |         |             |
|                     |  | 60 rpm ~ 1000 rpm            | 0.11 rpm                                       |   |                       |         |             |
|                     |  | 1000 rpm ~ 5000 rpm          | 0.16 rpm                                       |   |                       |         |             |
|                     |  | 5000 rpm ~ 15000 rpm         | 0.67 rpm                                       |   |                       |         |             |
|                     |  | 15000 rpm ~ 30000 rpm        | 0.89 rpm                                       |   |                       |         |             |
|                     |  | 30000 rpm ~ 50000 rpm        | 1.3 rpm  |   |                       |         |             |
|                     |  | 50000 rpm ~ 90000 rpm        | 2.3 rpm  |   |                       |         |             |
|                     |  | RPM Meter                    | <i>Centrifuge / Mixer/<br/>Vortex / Stirer</i> |   | 60 rpm ~ 10000 rpm    | 4.4 rpm | IK-KL-TF-02 |
|                     |  |                              |  |   | 10000 rpm ~ 15000 rpm | 4.5 rpm |             |
|                     |  |                              |  |   | 15000 rpm ~ 20000 rpm | 4.5 rpm |             |
| Instrumen Analitik  | <i>Stopwatch</i><br><i>Timer</i>                                     | 10 s ~ 3600 s                | 0.30 s   | IK-KL-TF-03                                       |                       |         |             |
|                     |  | 10 s ~ 3600 s                | 0.78 s   |   |                       |         |             |
|                     | <i>Spectrophotometer</i>   | <i>Wavelength</i><br>Holmium | 242 nm   | 0.21 nm   | IK-KL-IA-01           |         |             |
|                     |  |                              | 280 nm   | 0.21 nm   |                       |         |             |
|                     |  |                              | 288 nm   | 0.21 nm   |                       |         |             |
| 334 nm              |  |                              | 0.31 nm  |   |                       |         |             |
| 347 nm              |  |                              | 0.42 nm  |   |                       |         |             |
| 361 nm              |  |                              | 0.21 nm  |   |                       |         |             |
| 418 nm              |  |                              | 0.13 nm  |   |                       |         |             |
| 447 nm              |  |                              | 0.13 nm  |   |                       |         |             |
| 453 nm              |  |                              | 0.13 nm  |   |                       |         |             |
| 460 nm              |  |                              | 0.13 nm  |   |                       |         |             |
| 484 nm              |  |                              | 0.42 nm  |   |                       |         |             |
| 536 nm              |  |                              | 0.13 nm  |   |                       |         |             |
| 638 nm              |  |                              | 0.42 nm  |   |                       |         |             |
| Didymium            |  |                              | 351 nm   | 0.42 nm   |                       |         |             |
|                     |  |                              | 359 nm   | 0.42 nm   |                       |         |             |
|                     | 431 nm   | 0.13 nm                      |  |   |                       |         |             |
|                     |  | 474 nm                       | 0.42 nm  |   |                       |         |             |
|                     |  | 514 nm                       | 0.42 nm  |   |                       |         |             |

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|  |   |           |            |             |  |
|--|---|-----------|------------|-------------|--|
|  |   | 530 nm    | 0.21 nm    |             |  |
|  |   | 586 nm    | 0.42 nm    |             |  |
|  |   | 684 nm    | 0.42 nm    |             |  |
|  |   | 739 nm    | 0.42 nm    |             |  |
|  |   | 808 nm    | 0.21 nm    |             |  |
|  | <i>Transmittance</i> at $\lambda = 635, 590, 546, 465, \text{ dan } 440 \text{ nm}$ | 2 %T      | 0.13 %T    |             |  |
|  |   | 10 %T     | 0.13 %T    |             |  |
|  |   | 20 %T     | 0.22 %T    |             |  |
|  |   | 30 %T     | 0.31 %T    |             |  |
|  |   | 65 %T     | 0.41 %T    |             |  |
|  | <i>Elisa Reader</i><br>( <i>Spectrophotometer</i> )                                 |           |            |             |  |
|  | Fotometri pada panjang gelombang 405 nm   | 0.258 Abs | 0.0022 Abs | IK-KL-IA-05 |  |
|  |   | 0.565 Abs | 0.0022 Abs |             |  |
|  |   | 1.244 Abs | 0.0032 Abs |             |  |
|  |   | 1.76 Abs  | 0.0032 Abs |             |  |
|  | Fotometri pada Panjang Gelombang 440 nm   | 0.261 Abs | 0.0022 Abs |             |  |
|  |   | 0.555 Abs | 0.0022 Abs |             |  |
|  |   | 1.189 Abs | 0.0032 Abs |             |  |
|  |   | 1.688 Abs | 0.0032 Abs |             |  |
|  | Fotometri pada Panjang Gelombang 450 nm   | 0.249 Abs | 0.0022 Abs |             |  |
|  |   | 0.531 Abs | 0.0022 Abs |             |  |
|  |   | 1.144 Abs | 0.0032 Abs |             |  |
|  |   | 1.627 Abs | 0.0032 Abs |             |  |
|  | Fotometri pada Panjang Gelombang 465 nm   | 0.237 Abs | 0.0022 Abs |             |  |
|  |   | 0.503 Abs | 0.0022 Abs |             |  |
|  |   | 1.097 Abs | 0.0032 Abs |             |  |
|  |   | 1.565 Abs | 0.0032 Abs |             |  |
|  | Fotometri pada Panjang Gelombang 490 nm   | 0.257 Abs | 0.0022 Abs |             |  |
|  |   | 0.533 Abs | 0.0022 Abs |             |  |
|  |   | 1.138 Abs | 0.0032 Abs |             |  |
|  |   | 1.63 Abs  | 0.0032 Abs |             |  |
|  | Fotometri pada Panjang Gelombang 546 nm   | 0.249 Abs | 0.0022 Abs |             |  |
|  |   | 0.514 Abs | 0.0022 Abs |             |  |

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|  |   |                       |                       |             |  |
|--|---|-----------------------|-----------------------|-------------|--|
|  |   | 1.099 Abs             | 0.0032 Abs            |             |  |
|  |   | 1.574 Abs             | 0.0032 Abs            |             |  |
|  | Fotometri pada Panjang Gelombang 550 nm         | 0.25 Abs              | 0.0022 Abs            |             |  |
|  |   | 0.515 Abs             | 0.0022 Abs            |             |  |
|  |   | 1.096 Abs             | 0.0032 Abs            |             |  |
|  | Fotometri pada Panjang Gelombang 590 nm         | 1.571 Abs             | 0.0032 Abs            |             |  |
|  |   | 0.288 Abs             | 0.0022 Abs            |             |  |
|  |   | 0.565 Abs             | 0.0022 Abs            |             |  |
|  |   | 1.167 Abs             | 0.0032 Abs            |             |  |
|  | Fotometri pada Panjang Gelombang 620 nm         | 1.686 Abs             | 0.0032 Abs            |             |  |
|  |   | 0.287 Abs             | 0.0022 Abs            |             |  |
|  |   | 0.55 Abs              | 0.0022 Abs            |             |  |
|  |   | 1.128 Abs             | 0.0032 Abs            |             |  |
|  | Fotometri pada Panjang Gelombang 635 nm         | 1.635 Abs             | 0.0032 Abs            |             |  |
|  |   | 0.293 Abs             | 0.0022 Abs            |             |  |
|  |   | 0.551 Abs             | 0.0022 Abs            |             |  |
|  |   | 1.123 Abs             | 0.0032 Abs            |             |  |
|  |   | 1.632 Abs             | 0.0032 Abs            |             |  |
|  | Fotometri pada Panjang Gelombang 650 nm         | 0.301 Abs             | 0.0022 Abs            |             |  |
|  |   | 0.554 Abs             | 0.0022 Abs            |             |  |
|  |   | 1.119 Abs             | 0.0032 Abs            |             |  |
|  |   | 1.632 Abs             | 0.0032 Abs            |             |  |
|  | pH Meter  | 4 pH                  | 0.025 pH              | IK-KL-IA-02 |  |
|  |   | 7 pH                  | 0.025 pH              |             |  |
|  |   | 10 pH                 | 0.036 pH              |             |  |
|  | Conductivity Meter                              | 25 $\mu\text{S/cm}$   | 0.54 $\mu\text{S/cm}$ | IK-KL-IA-03 |  |
|  |   | 147 $\mu\text{S/cm}$  | 2.3 $\mu\text{S/cm}$  |             |  |
|  |   | 1412 $\mu\text{S/cm}$ | 9.8 $\mu\text{S/cm}$  |             |  |
|  | Polari Meter                                    |                       |                       |             |  |
|  | Angular degrees rotation at $\lambda$ 546.22 nm | 1 °                   | 0.0050 °              | IK-KL-IA-04 |  |
|  |   | 6 °                   |                       |             |  |
|  |   | 20 °                  |                       |             |  |
|  |   | 41 °                  |                       |             |  |
|  |   | 84 °                  |                       |             |  |

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|  |  |        |   |                       |                        |              |
|--|--|--------|---|-----------------------|------------------------|--------------|
|  | Angular degrees rotation at $\lambda$<br>589.44 nm |        |   | 1 °                   | 0.0050 °               |              |
|  |  |        |   | 5 °                   |                        |              |
|  |  |        |   | 17 °                  |                        |              |
|  |  |        |   | 35 °                  |                        |              |
|  |  |        |   | 71 °                  |                        |              |
|  | Sugar degrees at $\lambda$ 546.22 nm               |        |   | 3 °Z                  | 0.013 °Z               |              |
|  |  |        |   | 14 °Z                 |                        |              |
|  |  |        |   | 50 °Z                 |                        |              |
|  |  |        |   | 100 °Z                |                        |              |
|  |  |        |   | 206 °Z                |                        |              |
|  | Sugar degrees at $\lambda$ 587.00 nm               |        |   | 3 °Z                  | 0.013 °Z               |              |
|  |  |        |   | 14 °Z                 |                        |              |
|  |  |        |   | 50 °Z                 |                        |              |
|  |  |        |   | 100 °Z                |                        |              |
|  |  |        |   | 206 °Z                |                        |              |
|  | Sugar degrees at $\lambda$ 589.44 nm               |        |   | 3 °Z                  | 0.013 °Z               |              |
|  |  |        |   | 14 °Z                 |                        |              |
|  |  |        |   | 50 °Z                 |                        |              |
|  |  |        |   | 100 °Z                |                        |              |
|  |  |        |   | 206 °Z                |                        |              |
|  | CO <sub>2</sub> Inkubator                          |        |   |                       |                        |              |
|  | Temperature  | 25 °C  | ~ | 40 °C                 | 0.48 °C                | KAN Pd-02.04 |
|  | Gas CO <sub>2</sub>                                |        |   | 2.5 % CO <sub>2</sub> | 0.17 % CO <sub>2</sub> | IK-KL-IA-06  |
|  |  |        |   | 5 % CO <sub>2</sub>   | 0.23 % CO <sub>2</sub> |              |
|  |  |        |   | 10 % CO <sub>2</sub>  | 0.42 % CO <sub>2</sub> |              |
|  | Autoclave  |        |   |                       |                        |              |
|  | Temperature  | 105 °C | ~ | 135 °C                | 0.67 °C                | IK-KL-IA-07  |
|  | Tekanan  | 0 bar  | ~ | 2.3 bar               | 0.034 bar              |              |
|  | Moisture Meter                                     |        |   |                       |                        |              |
|  | Massa  | 1 g    | ~ | 150 g                 | 1.0 g                  | IK-KL-IA-08  |
|  | Temperature  | 50 °C  | ~ | 180 °C                | 0.66 °C                |              |
|  | Light Scattering Air Borne<br>Particle Counter     |        |   |                       |                        |              |
|  | Flowrate   |        |   | 2.83 lpm              | 0.091 lpm              | IK-KL-OQ-01  |
|  |  |        |   | 28.3 lpm              | 0.45 lpm               |              |
|  |  |        |   | 50 lpm                | 0.79 lpm               |              |
|  |  |        |   | 100 lpm               | 1.6 lpm                |              |
|  | Time   | 1 min  | ~ | 30 min                | 0.59 s                 |              |

**LAMPIRAN SERTIFIKAT AKREDITASI LK-502-IDN (Penetapan: 18 November 2025)**  
**LABORATORIUM KALIBRASI SNI ISO/IEC 17025: 2017 (ISO/IEC 17025: 2017)**

|  |   |   |          |  |             |                  |
|--|---|---|----------|--|-------------|------------------|
|  | <i>Particle Concentration (Particle Size = 0.5)</i> | 158850 Pc/m <sup>3</sup> ~ 194150 Pc/m <sup>3</sup>   | 23 %     |  | IK-KL-OQ-02 | % = % of reading |
|  | <i>Aerosol Fotometer</i>                            | 1588500 Pc/m <sup>3</sup> ~ 1941500 Pc/m <sup>3</sup> | 23 %     |  |             |                  |
|  | <i>Flowrate</i>                                     | 28.3 lpm  | 0.48 lpm |  |             |                  |
|  | <i>Aerosol Concentration (PAO &amp; DOP)</i>        | 100 µg/l  | 11 µg/l  |  |             |                  |

Catatan :

\*) Ketidakpastian yang diperluas dinyatakan pada tingkat kepercayaan 95% dengan faktor cakupan k = 2 yang merupakan ketidakpastian terbaik yang dapat dicapai dalam layanan kalibrasi rutin dengan sumberdaya yang dimiliki laboratorium

Lampiran sertifikat akreditasi ini tidak boleh digandakan kecuali seluruhnya, tanpa persetujuan tertulis dari pihak KAN