

# Lovibond® Water Testing

## Tintometer® Group



### Comparator 2000+

More than 400 different test discs available



- More than 400 different test discs available
- Compensation for coloured and turbid samples
- Guaranteed constancy of the coloured glass standards
- Integrated prism

Part Number: 142000

#### Usable in different applications

The Comparator 2000+ is versatile: it is used in swimming pools as well as in research centers, universities or general drinking water treatment.

#### Daylight lamp

So that you can always measure safely and stably under unfavorable visibility conditions, we recommend the use of the (optional) mains or battery-powered daylight lamp. So the lighting conditions always remain the same. No matter where you are measuring.

#### Various analyses possible

For the Comparator 2000+, more than 400 color discs and numerous reagents are available. Your combination is guaranteed. And if you have to change them once, it works without opening the comparator.

#### Integrated prism

The integrated prism visually brings the glass standards of the color disc and the colored sample into view.

#### Industry

Chemical Industry | Food and Beverage Industry | Industries Others | Municipalities | NGO | Oil and Gas | Pharmaceutical Industry | Pool Public | Pool Services | Power and Energy

#### Application

Beer, Malts and Caramels | Boiler Water | Chemicals | Coatings | Cooling Water | Disinfection Control | Drinking Water Treatment | Edible Oils and Fats | Food and Beverage | Galvanization | Petroleum Oils and Waxes | Pool Water Control | Pool Water Treatment | Waste-Water Treatment

#### Comparator 2000+

The Comparator 2000+ is a versatile colorimetric system for water analysis. Comfortable handling, no compromise on accuracy and reproducibility: The Comparator 2000+ can be used for many applications. Swimming pools, research or drinking water treatment are just a few examples.

## Measuring Range

| Test Name          | Measuring Range                   | Chemical Method                        |
|--------------------|-----------------------------------|--|
|                    | 0 - 30 mg/l Pt                    | (APHA) Platinum Cobalt Standard Method |
|                    | 10 - 90 mg/l Pt                   | (APHA) Platinum Cobalt Standard Method |
|                    | 30 - 70 mg/l Pt                   | (APHA) Platinum Cobalt Standard Method |
|                    | 50 - 500 mg/l Pt                  | (APHA) Platinum Cobalt Standard Method |
|                    | 70 - 250 mg/l Pt                  | (APHA) Platinum Cobalt Standard Method |
| Aluminium T        | 0 - 0.5 mg/l Al                   | Eriochrom Cyanine R                    |
| Amine              | 0 - 2 mg/l NH <sub>3</sub>        | Methyl Orange                          |
| Amine T            | 1.0 - 10 mg/l NH <sub>3</sub>     | Bromocresol Green                      |
| Ammonia Nes. L     | 0.02 - 0.2 mg/l N                 |  |
| Ammonia Nes. L     | 0.2 - 0.52 mg/l N                 |  |
| Ammonia Nes. L     | 0.56 - 1.2 mg/l N                 |  |
| Ammonia Nes. L     | 1.2 - 2.0 mg/l N                  |  |
| Ammonia T          | 0 - 0.4 mg/l N                    | Indophenole Blue                       |
| Ammonia T          | 0 - 1.0 mg/l N                    | Indophenole Blue                       |
| Ammonia T          | 0 - 10 mg/l N                     | Indophenole Blue                       |
| Bromine T          | 0.2 - 2.0 mg/l Br <sub>2</sub>    | DPD                                    |
| Bromine T          | 0.5 - 6.0 mg/l Br <sub>2</sub>    | DPD                                    |
| Bromine T          | 1.0 - 10 mg/l Br <sub>2</sub>     | DPD                                    |
| Chlorine dioxide T | 0.04 - 0.57 mg/l ClO <sub>2</sub> | DPD                                    |
| Chlorine dioxide T | 0.19 - 1.9 mg/l ClO <sub>2</sub>  | DPD                                    |
| Chlorine dioxide T | 0.25 - 5.0 mg/l ClO <sub>2</sub>  | Potassium Iodide                       |
| Chlorine dioxide T | 0.38 - 1.52 mg/l ClO <sub>2</sub> | DPD                                    |
| Chlorine HR T      | 2.0 - 10 mg/l Cl <sub>2</sub>     | Potassium Iodide                       |
| Chlorine HR T      | 5.0 - 50 mg/l Cl <sub>2</sub>     | Potassium Iodide                       |
| Chlorine HR T      | 5.0 - 250 mg/l Cl <sub>2</sub>    | Potassium Iodide                       |
| Chlorine L         | 0.01 - 0.1 mg/l Cl <sub>2</sub>   | DPD                                    |
| Chlorine L         | 0.1 - 1.0 mg/l Cl <sub>2</sub>    | DPD                                    |
| Chlorine L         | 0.1 - 1.0 mg/l Cl <sub>2</sub>    | DPD                                    |
| Chlorine L         | 0.1 - 2.0 mg/l Cl <sub>2</sub>    | DPD                                    |
| Chlorine L         | 0.02 - 0.2 mg/l Cl <sub>2</sub>   | DPD                                    |
| Chlorine L         | 0.02 - 0.3 mg/l Cl <sub>2</sub>   | DPD                                    |
| Chlorine L         | 0.2 - 0.8 mg/l Cl <sub>2</sub>    | DPD                                    |
| Chlorine L         | 0.2 - 4.0 mg/l Cl <sub>2</sub>    | DPD                                    |
| Chlorine L         | 0.05 - 0.5 mg/l Cl <sub>2</sub>   | DPD                                    |
| Chlorine L         | 1.0 - 4.0 mg/l Cl <sub>2</sub>    | DPD                                    |
| Chlorine T         | 0.01 - 0.1 mg/l Cl <sub>2</sub>   | DPD                                    |
| Chlorine T         | 0.1 - 1.0 mg/l Cl <sub>2</sub>    | DPD                                    |
| Chlorine T         | 0.1 - 1.0 mg/l Cl <sub>2</sub>    | DPD                                    |
| Chlorine T         | 0.1 - 1.0 mg/l Cl <sub>2</sub>    | DPD                                    |
| Chlorine T         | 0.1 - 2.0 mg/l Cl <sub>2</sub>    | DPD                                    |
| Chlorine T         | 0.1 mg/l Cl <sub>2</sub>          | o-Tolidine                             |
| Chlorine T         | 0.02 - 0.2 mg/l Cl <sub>2</sub>   | DPD                                    |
| Chlorine T         | 0.02 - 0.3 mg/l Cl <sub>2</sub>   | DPD                                    |
| Chlorine T         | 0.02 - 0.5 mg/l Cl <sub>2</sub>   | DPD                                    |
| Chlorine T         | 0.2 - 0.8 mg/l Cl <sub>2</sub>    | DPD                                    |
| Chlorine T         | 0.2 - 4.0 mg/l Cl <sub>2</sub>    | DPD                                    |
| Chlorine T         | 0.05 - 0.5 mg/l Cl <sub>2</sub>   | DPD                                    |
| Chlorine T         | 0.5 - 4.0 mg/l Cl <sub>2</sub>    | DPD                                    |
| Chlorine T         | 0.5 - 6.0 mg/l Cl <sub>2</sub>    | DPD                                    |
| Chlorine T         | 0.15 - 2.0 mg/l Cl <sub>2</sub>   | o-Tolidine                             |
| Chlorine T         | 1.0 - 4.0 mg/l Cl <sub>2</sub>    | DPD                                    |
| Chlorine T         | 1.0 - 5.0 mg/l Cl <sub>2</sub>    | o-Tolidine                             |

| Test Name                          | Measuring Range                               | Chemical Method   |
|------------------------------------|---|---|
| Chlorine T                         | 1.5 mg/l Cl <sub>2</sub>                      | DPD   |
| Chlorine T                         | 2.0 - 5.0 mg/l Cl <sub>2</sub>                | DPD   |
| Chlorine T                         | 2.0 - 10.0 mg/l Cl <sub>2</sub>               | DPD   |
| Chlorine T                         | 2.0 - 10 mg/l Cl <sub>2</sub>                 | DPD   |
| Chromium L                         | 0.4 - 4.0 mg/l Cr                             | Diphenylcarbazide   |
| Copper HR T                        | 0 - 4.0 mg/l Cu                               | Zincon  |
| Copper LR T                        | 0 mg/l Cu                                     | Zincon  |
| DEHA L                             | 0.016 - 0.16 mg/l DE-HA                       | PPST  |
| Fluoride T                         | 0 - 1.6 mg/l F <sup>-</sup>                   | SPADNS  |
| H <sub>2</sub> O <sub>2</sub> LR T | 0.1 mg/l H <sub>2</sub> O <sub>2</sub>        | DPD / Catalyst  |
| H <sub>2</sub> O <sub>2</sub> LR T | 0.01 mg/l H <sub>2</sub> O <sub>2</sub>       | DPD / Catalyst  |
| H <sub>2</sub> O <sub>2</sub> LR T | 0.05 - 0.5 mg/l H <sub>2</sub> O <sub>2</sub> | DPD / Catalyst  |
| Hardness total P                   | 0 - 60 mg/l CaCO <sub>3</sub>                 | Murexide  |
| Hydrazine L                        | 0 - 0.4 mg/l N <sub>2</sub> H <sub>4</sub>    | PDMAB   |
| Hydrazine L                        | 0 - 1.0 mg/l N <sub>2</sub> H <sub>4</sub>    | PDMAB   |
| Hydrazine P                        | 0 - 0.5 mg/l N <sub>2</sub> H <sub>4</sub>    | PDMAB   |
| Hydrazine P                        | 0.02 - 0.2 mg/l N <sub>2</sub> H <sub>4</sub> | PDMAB   |
| Iodine T                           | 0.4 - 3.6 mg/l I                              | DPD   |
| Iodine T                           | 0.7 - 14 mg/l I                               | DPD   |
| Iron                               | 0.01 - 0.1 mg/l Fe                            | PPST  |
| Iron HR T                          | 1.0 - 10 mg/l Fe                              | PPST  |
| Iron LR T                          | 0.1 - 1.0 mg/l Fe                             | PPST  |
| Iron LR T                          | 0.02 - 0.3 mg/l Fe                            | PPST  |
| Mn T                               | 0 - 4.0 mg/l Mn                               | Formaloxime   |
| Molybdate HR T                     | 5.0 - 50 mg/l MoO <sub>4</sub>                | Thioglycolate   |
| Molybdate HR T                     | 10 - 150 mg/l MoO <sub>4</sub>                | Thioglycolate   |
| Molybdate L P                      | 0 - 10 mg/l MoO <sub>4</sub>                  | TRION   |
| Nitrate T                          | 0.1 - 1.0 mg/l N                              | Zinc Reduction / NED  |
| Nitrate T                          | 10 mg/l N                                     | Diazonium Reaction  |
| Nitrite L                          | 0.001 - 0.02 mg/l N                           | N-(1-Naphthyl)-ethylen-diamine                                    |
| Nitrite LR T                       | 0.002 - 0.05 mg/l N                           | N-(1-Naphthyl)-ethylen-diamine                                    |
| Nitrite LR T                       | 0.05 - 0.5 mg/l N                             | N-(1-Naphthyl)-ethylen-diamine                                    |
| Oxygen dissolved L                 | 2.0 - 12 mg/l O <sub>2</sub>                  |   |
| Ozone T                            | 0 - 0.5 mg/l O <sub>3</sub>                   | Potassium Indigothiosul-fonate                                    |
| Ozone T                            | 0.01 - 0.1 mg/l O <sub>3</sub>                | DPD   |
| Ozone T                            | 0.1 - 1.0 mg/l O <sub>3</sub>                 | DPD   |
| Ozone T                            | 0.05 - 0.45 mg/l O <sub>3</sub>               | DPD   |
| Phosphate HR T                     | 0 - 40 mg/l P                                 | Vanadomolybdate   |
| Phosphate HR T                     | 0 - 100 mg/l P                                | Vanadomolybdate   |
| Phosphate L                        | 0 - 80 mg/l P                                 | Ammonium Molybdate / Hydroquinone                                 |
| Phosphate L                        | 10 - 100 mg/l P                               | Vanadomolybdate   |
| Phosphate LR T                     | 0 - 4.0 mg/l P                                | Phosphomolybdenum Blue  |
| Phosphate L T                      | 0.2 - 2 mg/l PO <sub>4</sub>                  | Ammonium Molybdate / Potassium Antimonyl Tartrate / Ascorbic Acid |
| pH value L                         | 4.0 - 11                                      | Universal Mixing Indica-tor                                       |
| pH value L                         | 6.0   | Bromothymol Blue  |
| pH value L                         | 8.0 - 9.6                                     | Thymol Blue   |
| pH value T                         | 1.0 - 2.6                                     | Cresol Purple   |
| pH value T                         | 1.2 - 2.8                                     | Thymol Blue   |
| pH value T                         | 2.8 - 4.4                                     | Bromophenol Blue  |
| pH value T                         | 3.6   | Bromocresol Green   |
| pH value T                         | 4.4 - 6.0                                     | Methyl Red  |
| pH value T                         | 5.2 - 6.8                                     | Bromocresol Purple  |

| Test Name             | Measuring Range                 | Chemical Method  |
|-----------------------|---------------------------------|------------------|
| pH value T            | 6.0 - 7.6                       | Bromothymol Blue |
| pH value T            | 6.8 - 8.4                       | Phenol Red       |
| pH value T            | 7.0 - 8.0                       | Phenol Red       |
| pH value T            | 7.2 - 8.8                       | Cresol Red       |
| pH value T            | 7.6 - 9.2                       | Cresol Purple    |
| pH value T            | 8.0 - 9.6                       | Thymol Blue      |
| QAC HR T              | 0 - 200 mg/l QAC                | Sulphoneptaleine |
| QAC LR T              | 0 - 20 mg/l QAC                 | Sulphoneptaleine |
| Silica L              | 0.1 - 1.0 mg/l SiO <sub>2</sub> | Silicomolybdate  |
| Silica L              | 0.2 - 1.0 mg/l SiO <sub>2</sub> | Silicomolybdate  |
| Silica L              | 1.0 - 20 mg/l SiO <sub>2</sub>  | Silicomolybdate  |
| Silica L              | 2.5 - 25 mg/l SiO <sub>2</sub>  | Silicomolybdate  |
| Silica T              | 0.4 - 4.0 mg/l SiO <sub>2</sub> | Silicomolybdate  |
| Silica T              | 1.0 - 10 mg/l SiO <sub>2</sub>  | Silicomolybdate  |
| Sodium hypochlorite T | 2 - 16 % NaOCl                  | Potassium Iodide |
| Sugar                 | 0 - 100                         |                  |
| Sulphide T            | 0 - 0.5 mg/l S <sup>2-</sup>    | DPD / Catalyst   |
| Zinc HR T             | 0 mg/l Zn                       | Zincon / EDTA    |
| Zinc LR T             | 0 mg/l Zn                       | Zincon / EDTA    |

## Accessories

| Title   | Part Number |
|---|-------------|
| Bulb for Daylight cabinet 2000                                      | 124100      |
| Daylight cabinet, battery operated                                  | 142050      |
| Diffuser plate for cell holder                                      | 142070      |
| Plastic cell, 13,5 mm path length, with grey lid, set of 10         | 145500      |
| Plastic cell, 13,5 mm path length, with grey lid, set of 5          | 145505      |
| Plastic cell, 13,5 mm path length, with grey lid, set of 100        | 145510      |
| Water sampler, AF 631   | 170500      |
| Daylight cabinet, mains operated                                    | 171010      |
| External power supply   | 182049      |
| Lamp 2.5 V, 200 mA for Daylight cabinet TK 102 (change in pairs)    | 332279      |
| Extraction tube AF 260  | 352600      |
| Glass cell, 13,5 mm path length, with white lid, DB 424/S, set of 5 | 354243      |
| Stopper for glass cell DB 424/S, white                              | 354250      |
| Stopper for W 680/OG/40 glass cell, 40 mm path length               | 354270      |
| Glas stirring rod, 20 cm length                                     | 364080      |
| Stirring rod, 13 cm length  | 364100      |
| Stirring rod, 10 cm length  | 364109      |
| Glas stirring rod, 10 cm length                                     | 364110      |
| Stirring rod, 13 cm length, set of 10                               | 364120      |
| Stirring rod, 10 cm length, set of 10                               | 364130      |
| Nitrate test tube   | 366220      |
| 500 ml bottle, AF 631   | 375069      |
| Cleaning brush, 20 cm length  | 380030      |
| Brush, 11 cm length   | 380230      |
| Measuring spoon, 1 g  | 384930      |
| Dilution set sodium hypochlorite                                    | 414470      |
| Cuvette stand for 10 round cuvettes Ø 16 mm                         | 418957      |
| Plastic funnel with handle (white)                                  | 471007      |
| W 680/OG/2,5 glass cell, 2,5 mm path length                         | 606780      |
| W 680/OG/5 glass cell, 5 mm path length                             | 606790      |
| W 680/OG/13 glass cell, 13 mm path length                           | 606820      |
| W 680/OG/13,5 glass cell, 13,5 mm path length                       | 606830      |
| W 680/OG/25 glass cell, 25 mm path length                           | 606860      |
| W 680/OG/26 glass cell, 26 mm path length                           | 606870      |
| W 680/OG/40 glass cell, 40 mm path length                           | 606890      |

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**Tintometer GmbH**

Lovibond® Water Testing  
Schleefstraße 8-12  
44287 Dortmund  
Tel.: +49 (0)231/94510-0  
Fax: +49 (0)231/94510-30  
sales@lovibond.com  
www.lovibond.com  
Germany

**The Tintometer Limited**

Lovibond House  
Sun Rise Way  
Amesbury, SP4 7GR  
Tel.: +44 (0)1980 664800  
Fax: +44 (0)1980 625412  
sales@lovibond.uk  
www.lovibond.com  
UK

**Tintometer China**

Room 1001, China Life Tower  
16 Chaoyangmenwai Avenue,  
Beijing, 100020  
Tel.: +86 10 85251111 App. 330  
Fax: +86 10 85251001  
chinaoffice@tintometer.com  
www.lovibond.com  
China

**Tintometer South East Asia**

Unit B-3-12, BBT One Boulevard,  
Lebuh Nilam 2, Bandar Bukit Tinggi,  
Klang, 41200, Selangor D.E  
Tel.: +60 (0)3 3325 2285/6  
Fax: +60 (0)3 3325 2287  
lovibond.asia@tintometer.com  
www.lovibond.com  
Malaysia

**Tintometer Brazil**

Caixa Postal: 271  
CEP: 13201-970  
Jundiaí – SP  
Tel.: +55 (11) 3230-6410  
sales@tintometer.com.br  
www.lovibond.com.br  
Brazil

**Tintometer Inc.**

6456 Parkland Drive  
Sarasota, FL 34243  
Tel: 941.756.6410  
Fax: 941.727.9654  
sales@lovibond.us  
www.lovibond.com  
USA

**Tintometer India Pvt. Ltd.**

Door No: 7-2-C-14, 2<sup>nd</sup>, 3<sup>rd</sup> & 4<sup>th</sup> Floor  
Sanathnagar Industrial Estate,  
Hyderabad, 500018  
Telangana  
Tel: +91 (0) 40 23883300  
Toll Free: 1 800 599 3891/ 3892  
indiaoffice@tintometer.com  
www.lovibondwater.in  
India

**Tintometer Spain**

Postbox: 24047  
08080 Barcelona  
Tel.: +34 661 606 770  
sales@tintometer.es  
www.lovibond.com  
Spain

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