

CHECKIT® Comparator

Bedienungsanleitung

DE

Instruction Manual

GB

Mode d'emploi

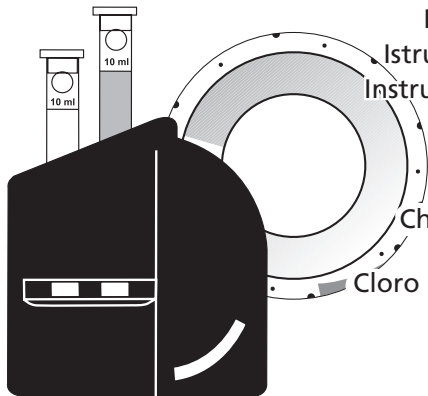
FR

Istruzioni per l'uso

IT

Instrucciones de uso

ES



Chlor frei, geb., gesamt

Chlorine free, combined, total

Chlore libre, combiné, total

Cloro libero, combinato, complessivo

Cloro libre, ligado, total

Powder Reagent

Anleitung zur Bestimmung von Chlor (DPD)

Freies gebundenes und Gesamtchlor

CHECKIT®Disc

Chlor

Messbereich

0 - 3.5 mg/l

Bestell-Nr.

14 60 50

Genauigkeit: ± 5 % vom Messbereichsendwert

Powder Pack

VARIO DPD Free Chlorine F5

freies Chlor

VARIO DPD Total Chlorine F5

gebundenes und Gesamtchlor

Bestell-Nr. per 100 Stück

53 00 90

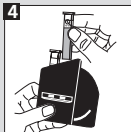
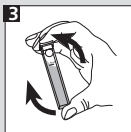
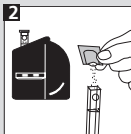
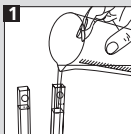
53 00 80

Freies Chlor (VARIO DPD Free Chlorine F5)

- 1 Beide Küvetten mit der Probe bis zur 5 ml-Marke füllen.
- 2 Eine Küvette als Blindprobe in die linke Kammer des Comparators stellen und mit dem Deckel verschließen.
- 3 In die andere Küvette den Inhalt des VARIO DPD Free Chlorine F5 geben.
- 4 Das Pulver durch Umschwenken auflösen und in die rechte Kammer stellen.
- 5 Nach dem Abgleich mit der CHECKIT®Disc wird das Ergebnis in mg/l als freies Chlor abgelesen.

Gesamt- und gebundenes Chlor (VARIO DPD Total Chlorine F5)

- 1 Beide Küvetten mit der Probe bis zur 5 ml-Marke füllen.
- 2 Eine Küvette als Blindprobe in die linke Kammer des Comparators stellen und mit dem Deckel verschließen.
- 3 In die andere Küvette den Inhalt des VARIO DPD Total Chlorine F5 geben.
- 4 Das Pulver durch Umschwenken auflösen und in die rechte Kammer stellen und
- 5 nach 3 Minuten Reaktionszeit
- 6 durch Abgleich mit der CHECKIT®Disc wird das Ergebnis als Gesamtchlor in mg/l ablesen.



Gebundenes Chlor

Das Ergebnis „Freies Chlor“ wird vom Messwert „Gesamtchlor“ abgezogen. Die Differenz stellt den Wert an gebundenem Chlor dar.

| | | |
|-----------|---------------------------|------------------|
| Beispiel: | Gesamtchlor | 1.20 mg/l |
| | - Freies Chlor | 0.42 mg/l |
| | <hr/> | |
| | = Gebundenes Chlor | 0.78 mg/l |

Hinweis:

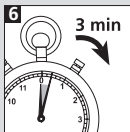
Über 6 mg/l Chlor bleicht der Farbindikator aus.

Wichtig:

Die Küvette muss mit dem Punkt zum Betrachter im Messschacht positioniert werden.

Um höchste Genauigkeit zu gewährleisten, Farbabgleich immer gegen Tagesnordlicht durchführen.

Küvetten müssen nach jeder Bestimmung gründlich gespült werden.



Instructions for the determination of chlorine (DPD)

Free, combined and total chlorine

CHECKIT® Disc

Chlorine

Measurement Range

0 - 3.5 mg/l

Order Code

14 60 50

Accuracy: $\pm 5\%$ full scale

Powder Pack

VARIO DPD Free Chlorine F5
free chlorine

VARIO DPD Total Chlorine F5
combined and total chlorine

Order Code (per 100 pcs)

53 00 90

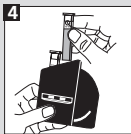
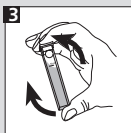
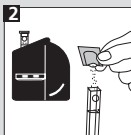
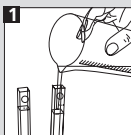
53 00 80

Free chlorine (VARIO DPD Free Chlorine F5)

① Fill both cells to the 5 ml mark and ② place one cell in the left-hand compartment of the comparator as a blank. ③ Add the content of the VARIO DPD Free Chlorine F5 in the other cell, close it with a lid and ④ swirl it until the powder has dissolved. ⑤ Place this second cell in the right-hand compartment of the comparator ⑥ match the two colour fields against north day light and read off the result in mg/l free chlorine.

Total and combined chlorine (VARIO DPD Total Chlorine F5)

① Fill both cells to the 5 ml mark and ② place one cell in the left-hand compartment of the comparator as a blank. ③ Add the content of the VARIO DPD Total Chlorine F5 in the other cell, close it with a lid and ④ swirl it until the powder has dissolved. ⑤ Place this second cell in the right-hand compartment of the comparator and ⑥ allow for 3 minutes reaction time. Then compare the two colour fields against north daylight and ⑦ read off the result as total chlorine in mg/l.



Combined chlorine

Deduct the reading for free chlorine from the figure obtained for total chlorine. The difference represents the result for combined chlorine.

| | | |
|----------------|--------------------------|------------------|
| Example: | total chlorine | 1.20 mg/l |
| | minus : free chlorine | 0.42 mg/l |
| | <hr/> | |
| gives : | combined chlorine | 0.78 mg/l |

Note:

Levels of chlorine above 6 mg/l can cause bleaching of the sample.

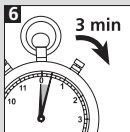
Important:

Place the cell with the mark (point) to the viewer in the compartment.

It is essential to rinse the cells thoroughly after each test.

To obtain maximum accuracy always view and match colour against north day light.

Store CHECKIT®Disc in the dark.



Mode d'emploi pour la détermination du chlore (DPD)

Chlore libre actif, combiné ou total

CHECKIT®Disc

Chlore

Plage de mesure

0 - 3.5 mg/l

Référence

14 60 500

Precision de la mesure: $\pm 5\%$ de valeur plafond de la plage de mesure

Pastilles

Référence de commande pour 100 pastilles

VARIO DPD Free Chlorine F5
free chlorine

53 00 90

VARIO DPD Total Chlorine F5
combined and total chlorine

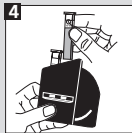
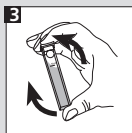
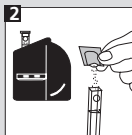
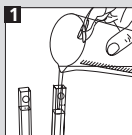
53 00 80

Chlore libre actif (VARIO DPD Free Chlorine F5)

➊ Remplir les deux cuves avec l'échantillon jusqu'à la marque 10 ml. ➋ Placer une cuve dans la chambre de mesure de gauche du comparateur (solution témoin). Ajouter une VARIO DPD Free Chlorine F5 Powder Pack dans l'autre cuve. ➌ Refermer la cuve et dissoudre en agitant la cuve et ➍ placer celle-ci dans la chambre de mesure de droite. ➎ Faire concorder la couleur obtenue avec le CHECKIT®Disc et lire le résultat en mg/l de chlore libre actif.

Chlore total et combiné (compléter avec VARIO DPD Total Chlorine F5)

➊ Remplir les deux cuves avec l'échantillon jusqu'à la marque 10 ml. ➋ Placer une cuve dans la chambre de mesure de gauche du comparateur (solution témoin). Ajouter une VARIO DPD Total Chlorine F5 Powder Pack dans l'autre cuve. ➌ Refermer la cuve et dissoudre en agitant la cuve et ➍ placer celle-ci dans la chambre de mesure de droite et ➎ attendre un temps de réaction de 3 minutes. Faire concorder la couleur obtenue avec le CHECKIT®Disc et ➏ lire le résultat en mg/l de chlore total.



Chlore combiné

Retirer le résultat « chlore libre actif » de la valeur obtenue de « chlore total ». La différence correspond à la valeur de chlore combiné.

| | | |
|----------|-----------------------|------------------|
| Exemple: | chlore total | 1,20 mg/l |
| - | chlore libre | 0,42 mg/l |
| = | chlore combiné | 0,78 mg/l |

Remarque:

Pour une teneur de chlore libre supérieure à 6 mg/l, l'indicateur coloré peut se décolorer.

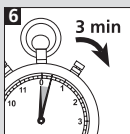
Important:

La cuve doit être positionnée de façon à ce que le point concorde avec le repère de la chambre de mesure.

Pour assurer la plus grande exactitude, faire concorder la couleur avec le CHECKIT®Disc en tenant le comparateur face à la lumière.

Les cuves doivent être bien nettoyées après chaque mesure.

Stocker CHECKIT®Disk dans un endroit sombre.



Istruzioni per la determinazione di cloro (DPD)

Cloro libero attivo, combinato e complessivo

CHECKIT®Disc

Cloro

Campo di misurazione Cod. art.

0 - 3.5 mg/l

14 60 500

Precisione di dischi: +/- 5% del valore finale.

Comprese

Cod. art. ogni 100 pezzi

VARIO DPD Free Chlorine F5
free chlorine

53 00 90

VARIO DPD Total Chlorine F5
combined and total chlorine

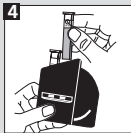
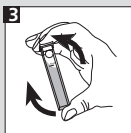
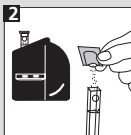
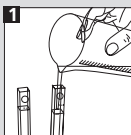
53 00 80

Cloro libero attivo (VARIO DPD Free Chlorine F5)

❶ Riempire le due cuvette con il campione fino alla tacca 10 ml.
❷ Porre una cuvetta come bianco nella camera a sinistra del comparatore. ❸ Introdurre una VARIO DPD Free Chlorine F5 Powder Pack nell'altra cuvetta e chiudere con il coperchio. ❹ Far sciogliere la compressa capovolgendo la cuvetta che poi verrà inserita nella camera a destra. ❺ In seguito alla compensazione con il CHECKIT®Disc il risultato viene letto in mg/l come cloro libero attivo.

Cloro combinato e complessivo (con aggiunta della VARIO DPD Total Chlorine F5)

❶ Riempire le due cuvette con il campione fino alla tacca 10 ml.
❷ Porre una cuvetta come bianco nella camera a sinistra del comparatore. ❸ Introdurre una VARIO DPD Total Chlorine F5 Powder Pack nell'altra cuvetta e chiudere con il coperchio.
❹ Far sciogliere la compressa capovolgendo la cuvetta che poi verrà inserita nella camera a destra e ❺ dopo 3 minuti di tempo di reazione tramite compensazione ❻ leggere il risultato come cloro complessivo in mg/l con il CHECKIT®Disc.



Cloro combinato

Il risultato "Cloro libero attivo" viene sottratto dal valore "Cloro complessivo". La differenza rappresenta il valore di cloro combinato.

| | | |
|----------|------------------------|------------------|
| Esempio: | Cloro complessivo | 1,20 mg/l |
| - | Cloro libero | 0,42 mg/l |
| = | Cloro combinato | 0,78 mg/l |

Nota:

Oltre i 6 mg/l di cloro libero l'indicatore cromatico può sbiancarsi.

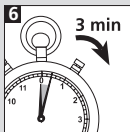
Importante:

La cuvetta deve essere posizionata nel pozzetto di misurazione con il punto verso l'osservatore.

Per garantire la massima precisione eseguire sempre la compensazione del colore contro la luce del giorno.

Le cuvette devono essere sempre lavate accuratamente in seguito ad ogni determinazione.

Conservare CHECKIT®Disc oscuro.



Instrucciones para la determinación de cloro (DPD)

Cloro libre, ligado y total

| CHECKIT® Disc | Campo de medición | Número de pedido |
|-----------------------------|-----------------------|------------------|
| Cloro | 0 - 3.5 mg/l | 14 60 50 |
| Precisión de discos: | ± 5 % del valor final | |

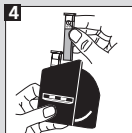
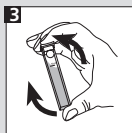
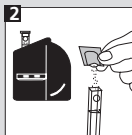
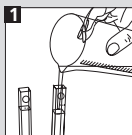
| Tabletas | Número de pedido |
|--|------------------|
| VARIO DPD Free Chlorine F5 free chlorine | 53 00 90 |
| VARIO DPD Total Chlorine F5 combined and total chlorine | 53 00 80 |

Cloro libre (VARIO DPD Free Chlorine F5)

① Llenar ambas cubetas con la prueba hasta la marca de 10 ml. ② Colocar una cubeta como ensayo en blanco en el compartimento izquierdo del Comparador. ③ Añadir a la segunda cubeta VARIO DPD Free Chlorine F5 Powder Pack y cerrarla con su tapa. ④ Agitar hasta la disolución total de la tableta y colocar esta cubeta en el compartimento derecho. ⑤ Una vez realizada la igualación del color producido en la cubeta con el CHECKIT® Disc, leer el resultado en mg/l de cloro libre.

Cloro total y ligado (adicionalmente con VARIO DPD Total Chlorine F5)

① Llenar ambas cubetas con la prueba hasta la marca de 10 ml. ② Colocar una cubeta como ensayo en blanco en el compartimento izquierdo del Comparador. ③ Añadir a la segunda cubeta una VARIO DPD Total Chlorine F5 Powder Pack y cerrarla con su tapa. ④ Agitar hasta la disolución total de la tableta y colocar esta cubeta en el compartimento derecho y ⑤ esperar 3 minutos de periodo de reacción ⑦ Una vez realizada la igualación del color producido en la cubeta con el CHECKIT® Disc, leer el resultado en mg/l de cloro total.



Cloro ligado

El resultado de "cloro libre" se resta del resultado de "cloro total". La diferencia será el valor total de cloro ligado.

| | | |
|--------------|---------------------|------------------|
| Por ejemplo: | Cloro total | 1,20 mg/l |
| - | cloro libre | 0,42 mg/l |
| = | cloro ligado | 0,78 mg/l |

Nota:

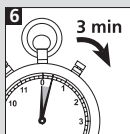
Concentraciones mayores a 6 mg/l de cloro libre, puede descolorar el indicador colóreo.

Importante:

Posicionar la cubeta en el compartimento de tal forma, que el punto se encuentre dirigido hacia el usuario.

Para garantizar una exactitud máxima, realizar el ajuste cromático siempre con luz diurna. Las cubetas se deberán de limpiar y enjuagar minuciosamente después de cada determinación.

Almacene CHECKIT®Disc oscuro.



| <i>Other available tests</i> | <i>Range</i> | <i>Other available tests</i> | <i>Range</i> |
|---------------------------------|----------------------------------|------------------------------|---|
| Aluminium | 0 - 0.3 mg/l Al | Manganese LR | 0.1 - 0.7 mg/l Mn |
| Ammonia | 0 - 1 mg/l N | Manganese VLR* | 0.02 - 0.2 mg/l Mn |
| Ammonia vario | 0 - 0.5 mg/l N | Molybdate LR* | 0 - 10 mg/l MoO ₄ |
| Bromine | 0.5 - 5 mmol/l | Molybdate HR | 0 - 100 mg/l MoO ₄ |
| Chlorine | 0 - 1 mg/l Cl ₂ | Molybdate HR | 50 - 500 mg/l MoO ₄ |
| free, combined, | 0.1 - 2 mg/l Cl ₂ | Nitrate LR | 0 - 1 mg/l N |
| total | 0 - 4 mg/l Cl ₂ | Nitrite LR | 0 - 0.5 mg/l N |
| Chlorine* | 0.02 - 0.3 mg/l Cl ₂ | Nitrite LR vario | 0 - 0.3 mg/l N |
| Chlorine Dioxide* | 0.01 - 0.2 mg/l ClO ₂ | Ozone (DPD) | 0 - 1.0 mg/l O ₃ |
| Chlorine HR (total) | 10 - 300 mg/l Cl ₂ | Ozone (DPD) | 0 - 1.0 mg/l O ₃ |
| Chlor vario | 0 - 3.5 mg/l Cl | in the presence of chlorine | |
| Copper (Cu²⁺) | 0 - 1 mg/l Cu | pH | 5.2 - 6.8 pH, |
| Copper LR* | 0 - 1 mg/l Cu | | 6.0 - 7.6 pH, |
| (free + total) | | | 6.5 - 8.4 pH, |
| Copper HR | 0 - 5 mg/l Cu | | 4 - 10 pH |
| (free + total) | | Phosphate LR | 0 - 4 mg/l PO ₄ |
| Copper LR vario* | 0 - 1 mg/l Cu | Phosphate HR | 0 - 80 mg/l PO ₄ |
| (free) | | Phosphate vario | 0 - 2.5 mg/l PO ₄ |
| Copper HR vario | 0 - 5 mg/l Cu | Säurekapazität Ks4.3 | 0.5 - 5 mmol/l |
| (free) | | Silica LR | 0.25 - 4 mg/l SiO ₂ |
| DEHA | 0 - 0.5 mg/l DEHA | Silica vario | 0 - 100 mg/l SiO ₂ |
| Fluoride | 0.2 - 2 mg/l F | Silica VLR* | 0 - 1 mg/l SiO ₂ |
| Iron LR | 0.05 - 1 mg/l Fe | Sodium Hypochlorite | 2 - 18 % NaOCl |
| Iron HR | 1 - 10 mg/l Fe | Sulfite LR | 0.5 - 10 mg/l SO ₃ ²⁻ |
| Iron TPTZ | 0 - 1,8 mg/l Fe | Total Alkalinity | 20-240 mg/l CaCO ₃ |
| | | Zinc LR | 0 - 1 mg/l Zn |

*Only with CHECKIT®Comparator D55 with mirror optics

Update: www.tintometer.de

No.: 00387001

Technical changes without notice

Printed in Germany 09/16