



## **Rheology Solutions**

*Rheology Solutions is the sole Australian distributor of this product range and we welcome the opportunity of discussing your application requirements.*

*We hope the information you are seeking is contained within this file.  
If you have any questions, or require further information please contact us.  
We look forward to being of further service.*

*Regards from the Team at Rheology Solutions.*

**RHEOLOGY SOLUTIONS PTY LTD.** ACN 082 479 632

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## CDF-/CIF Testing in Practice the first one with Internet-access



Durability is, alongside the strength, one of the most important properties of concrete. It depends on the type of building and the environmental conditions. It is especially in road construction that a high resistance to freeze-thaw cycles is of major importance and is thus one of the major criteria in testing.

The CDF-/CIF test set-up enables the freeze-thaw test to be carried out in accordance with CDF recommendations from RILEM. The advantage of this test method is in the very good reproducibility of the results that are given. With this test procedure, the weathered quantity of a surface is measured by a number of freeze-thaw cycles. The test specimens are thereby placed in a solution of sodium chloride to stress the surface. The result gives an estimate for the resistance to freeze-thaw cycling for the concrete being tested.

### High Tech - Made in Germany



## Test Procedure

Preparatory work begins after the seventh day following specimen manufacturing. The test specimens are stored in a climatic chamber at a temperature of +20 °C ( +/- 2 °C and a relative humidity of 65 % ) 5 %. The side faces of the test specimens are sealed five days before the end of dry storage using aluminium foil and butyl adhesive.

Capillary suction starts after the 28<sup>th</sup> day for seven days, hereby the increase in weight by the test specimens is measured after 2, 3, 4 and 7 days. Capillary suction is then followed by freeze-thaw- cycling in the CDF machine. The scaling and the inner damage is measured after 4, 14 and 28 days.

Also prepared for the following standards :

- CDF RILEM TC 117 FDC
- CIF RILEM TC 176 IDC
- Cube Test
- DIN 4226
- DIN 52104
- ASTM C666-96
- prEN-12390-9

## Technical Data

test cab dimensions	(wxl) 171 x 55 cm for 10 container GN-B 1/2½
temperature range	-25°C to 40 °C
max. temp. deviation	Better then 0.5 K
dimensions	lxwxh 220x80x120 cm
required room	(lxw) 350x160 cm
power	6 kW
required fuse	3 x 32 A
weight	550 kg
environment conditions	10 – 25 °C, max. humidity 60 %
Order No:	C0001

## Prices

Please ask for a quotation

## Combination of air and watercooling

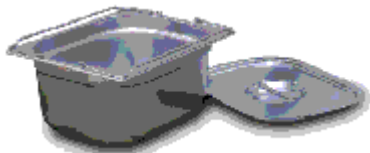
The system requires cooling water if the temperature of the room is over 25 °C

C0005 Please ask for a quotation

## License Fees for CDF / CIF Test

C0011 5000,00 EUR

For the following countries AU, CA, CN, JP, NO, PL, RU, US, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE



## Test Container

made of 18/10 stainless steel. The basic container has the size of 530 x 325 mm and is called as 1/1. Five of it fits in the cdf-test-equipment

GN-B 1/1	GN-D 1/1
GN-B 2/3	GN-D 2/3
GN-B 1/ 2	GN-D 1/ 2
GN-B 1/3	GN-D 1/3
GN-B 1/ 4	GN-D 1/ 4
GN-B 1/6	GN-D 1/6

## Case Holder

to place the test container . For the basic equipment we recommend 5 pieces each

ST003, 325 mm

ST005, 530 mm



## Test container for the cube test, VDZ - test

Made of 2mm stainless steel 1.403 soldered. With rubber sealing, lid, closing spring, social spacers. 15 pcs fit into the test mmachine

C0045



## 6 Channel Recorder

strip width 100 mm, 6 inputs 0-10 V, with interface cable

C0029

C0027 paper strip



## Spacer, 10 mm for CDF and 5 mm for CF test

made of PVDF-cones, 3pcs. Needed for each specimen

C0040 (5 mm)

C5555 (10 mm)



## Butyl Rubber

to glue the specimens, 75 mm x 5 m

C0021



## Water Jet Pump

with 1/2" connector, suction device with 15 mm spacer

C30



## Teflon Plates for 150 mm cubes

C0035



## SONOREX SUPER RK 514

Ultrasonic cleaning bath, size (LxBxT) 320x300x150 mm, HF-power 2x450 W/Periode

C0014



## Filter Container

for 10 hoppers

C0017



## Pundit Ultrasonic Digital Indicating Tester

measure the transit time of ultrasonic waves, with 150 kHz transducers, cable

C0025

## Hopper

C0018



## Paper Filter

C19



## Pundit Ultrasonic Digital Indicating Tester Pundit+

measure the transit time of ultrasonic waves, and e-modul, with 150 kHz transducers, cable, PC interface

C0050



## Ultrasonic Test Container

for ultrasonic transit time measurement with the Pundit tester-Tester made of PMMA.

C0026 for 150 mm cubes

C0027 for 100 mm cubes



## Stainless Steel Plate for CIF-Test

C0037 max. 100 x 100 mm

C0038 max. 150 x 150 mm

C0039 max. 200 x 100 mm



## Liquid coolant

glykol based coolant

C0031



## Holder for the temperature sensor

The sensor is pressed by a spring against the bottom of the specimen container. Standard since June 2000. Spare part for older systems. (included in the CDF machine, spare part)

C0056



## Cooling Liquid Tester

Fast test of the cooling liquid

C0061