



**CFU**  
INTERNATIONAL TRADE  
& SERVICES INC.

# Aggregate Testing Equipments

Aggregates are fundamental materials that are used in all areas of construction industry such as concrete, mortars, bituminous mixtures, surface treatments for roads, airfields and other trafficked areas, railway ballast, unbound and hydraulic bound mixtures in civil engineering works and road constructions, which comprise our modern world as buildings, highways, dams, railways ...etc. Thus it is crucial to determine the properties of aggregates according to related EN, ASTM, AASTHO, BS standards.

In the aggregate section, CFU Testing Equipment is basically grouped in four main headings according to standards.

EN

- General and geometrical properties of aggregates
- Mechanical and physical properties of aggregates
- Thermal and weathering properties of aggregates
- Chemical properties of aggregates

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## GENERAL & GEOMETRIC PROPERTIES

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- Organic Substances / Humus Content

## SAMPLE PREPARATION

### Product Code

CFA-0320 Large Capacity Sample Splitter

### Standards

EN 932-2; ASTM C702; BS 812:1, 1377:1, 1924:1

CFA-0320 Large Capacity Sample Splitter is used for splitting aggregate samples. Slot widths are adjustable from 12,5 mm to 100 mm and the splitter is equipped with 25 channels with a 20 L hopper capacity.



The Large Capacity Sample Splitter is supplied complete with

- Sample Collection Pan, 2 pcs.

Dimensions	740x485x990 mm
Weight (approx.)	50 kg

## SAMPLE PREPARATION

### Product Code

CFA-0338	Riffle Box 5 mm
CFA-0340	Riffle Box 7 mm
CFA-0341	Riffle Box 13 mm
CFA-0342	Riffle Box 15 mm
CFA-0343	Riffle Box 19 mm
CFA-0344	Riffle Box 25 mm
CFA-0345	Riffle Box 30 mm
CFA-0346	Riffle Box 38 mm
CFA-0347	Riffle Box 45 mm
CFA-0348	Riffle Box 50 mm
CFA-0349	Riffle Box 64 mm
CFA-0350	Riffle Box 75 mm

### Standards

EN 932-2; ASTM C702; BS 812:1, 1377:1, 1924:1

Riffle boxes are used for dividing aggregates into 2 equal homogenous quantity for testing. The Riffle Box is electrostatically painted and manufactured to meet the relevant International standard both in the slot width and number of slots.



The Riffle Boxes are supplied complete with

- Containers with Handles, 3 pcs.

	Aperture ( mm )	Number of Slots	Weight ( kg )	Dimensions ( mm )
CFA-0338	5	16	2	130x180x180
CFA-0340	7	12	2	130x180x180
CFA-0341	13	12	6	200x250x350
CFA-0342	15	12	6,5	200x290x350
CFA-0343	19	10	11	220x310x400
CFA-0344	25	10	9	250x350x420
CFA-0345	30	10	15	230x420x450
CFA-0346	38	8	16	320x430x570
CFA-0347	45	8	20	320x450x590
CFA-0348	50	8	20	320x500x600
CFA-0349	64	8	32	360x600x600
CFA-0350	75	8	35	370x700x600

## FLAKINESS INDEX

### Product Code

CFA-0410	Flakiness Index Sieve Set BS
CFA-0411	Flakiness Index Sieve BS 4.9x30 mm slot size
CFA-0412	Flakiness Index Sieve BS 7.2x40 mm slot size
CFA-0413	Flakiness Index Sieve BS 10.2x50 mm slot size
CFA-0414	Flakiness Index Sieve BS 14.4x60 mm slot size
CFA-0415	Flakiness Index Sieve BS 19.7x80 mm slot size
CFA-0416	Flakiness Index Sieve BS 26.3x90 mm slot size
CFA-0417	Flakiness Index Sieve BS 33.9x100 mm slot size

### Standards

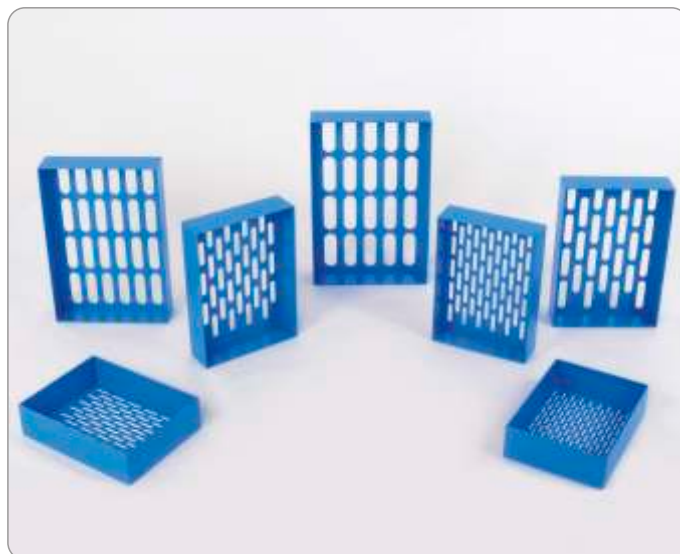
BS 812-105.1

Aggregate particles are considered as flaky when their thickness is less than 0.6 of their mean sieve size. Aggregate to be classified is separated into seven sieve fractions from 6.3 to 63 mm and each fraction is examined separately.

The dimensions of each sieve comply with the relevant International Standard, manufactured from heavy gauge steel sheet and coated with electrostatic paint. The accuracy of the slot size is better than 0.1 mm.

CFA-0410 Flakiness Index Sieve Set consists of 7 sieves.

For sample preparation 6.3, 10, 14, 20, 28, 37.5, 50 and 63 mm aperture sizes test sieves should be ordered separately.



	Slot Size ( w x l ) ( mm )	Weight ( approx. ) ( kg )	Dimensions ( mm )
CFA-0411	4.9x30	1.5	300x220x80
CFA-0412	7.2x40	1.6	320x240x80
CFA-0413	10.2x50	1.9	300x220x80
CFA-0414	14.4x60	2.0	360x260x80
CFA-0415	19.7x80	2.2	390x280x80
CFA-0416	26.3x90	2.6	420x300x80
CFA-0417	33.9x100	2.9	470x320x80

## SAMPLE PREPARATION

### Product Code

CFA-0360-C	Laboratory Type Jaw Crusher, 380 V 50 Hz, 3ph
CFA-0365-C	Laboratory Type Vib. Disc Mill, 220-240 V 50-60 Hz
CFA-0370-C	Laboratory Type Disc Mill, 380 V 50 Hz, 3ph

CFA-0360 is used for crushing, CFA-0365 and CFA-0370 are used for grinding cement clinker, ceramics, basalt, chamotte, construction materials, alloys, coal, coke, feldspar, glass and various materials in the laboratory when smaller sample sizes are required for testing.

Three models are available (see Technical Specifications) depending on different feed sizes, output grain sizes and capacity requirements.

### Technical Specifications

	CFA-0360-C	CFA-0365-C	CFA-0370-C
Feed Size	100 mm	<15 mm	<15 mm
Output Grain Size	<500 µm 0-8 mm	38 µm max. 10 µm	<150- 250 µm
Capacity	150 kg/h	(*)	(*)
Dimensions	482x1044x1015 mm	650x730x1150 mm	780x780x1460 mm
Weight	250 kg	330 kg	100 kg
Power	4 HP	1,5 HP	3 kW

(\*) Dijital setting of grinding time from 0 up to 999 h or 999 min. or 999 seconds



CFA-0365-C



CFA-0370-C



CFA-0360-C



## FLAKINESS INDEX

### Product Code

CFA-0420	Grid Sieve Set (Flakiness Index Sieve Set EN)
CFA-0421	Grid Sieve (Flakiness Index Sieve EN) 2.5 mm
CFA-0422	Grid Sieve (Flakiness Index Sieve EN) 3.15 mm
CFA-0423	Grid Sieve (Flakiness Index Sieve EN) 4 mm
CFA-0424	Grid Sieve (Flakiness Index Sieve EN) 5 mm
CFA-0425	Grid Sieve (Flakiness Index Sieve EN) 6.3 mm
CFA-0426	Grid Sieve (Flakiness Index Sieve EN) 8 mm
CFA-0427	Grid Sieve (Flakiness Index Sieve EN) 10 mm
CFA-0428	Grid Sieve (Flakiness Index Sieve EN) 12.5 mm
CFA-0429	Grid Sieve (Flakiness Index Sieve EN) 16 mm
CFA-0430	Grid Sieve (Flakiness Index Sieve EN) 20 mm
CFA-0431	Grid Sieve (Flakiness Index Sieve EN) 25 mm
CFA-0432	Grid Sieve (Flakiness Index Sieve EN) 31.5 mm
CFA-0433	Grid Sieve (Flakiness Index Sieve EN) 40 mm
CFA-0434	Grid Sieve (Flakiness Index Sieve EN) 50 mm

### Standards

EN 933-3; NF P18-561; UNI 8520-18; NLT 354

Used for the determination of the flakiness index of the aggregate.

Consisting of an electrostatically painted frame and 5 mm diameter stainless steel bars with apertures state below.

For sample preparation 4.5, 6.3, 8, 10, 12.5, 16, 20, 25, 31.5, 40, 50, 63, 80 and 100 mm aperture sizes test sieves should be ordered seperately.



	Aperture ( mm )	Weight ( kg )	Dimensions ( mm )
CFA-0421	2.5	3.3	340x320x80
CFA-0422	3.15	3.3	340x320x80
CFA-0423	4	3.8	340x320x80
CFA-0424	5	3.8	340x320x80
CFA-0425	6.3	3.7	340x320x80
CFA-0426	8	3.6	340x320x80
CFA-0427	10	3.4	340x320x80
CFA-0428	12.5	3.2	340x320x80
CFA-0429	16	4	340x320x80
CFA-0430	20	3.2	340x320x80
CFA-0431	25	3.2	340x320x80
CFA-0432	31.5	2.9	340x320x80
CFA-0433	40	2.7	340x320x80
CFA-0434	50	2.5	340x320x80

## FLOW COEFFICIENT of AGGREGATES

### Product Code

CFA-0440 Efflux Index Apparatus (Flow Coefficient of Fine Aggregates) ,EN

### Standards

EN 933-6

CFA-0440 Efflux Index (Flow Coefficient of Fine Aggregates) Apparatus is used to obtain information about the shape and the angularity of grains of fine aggregates.

The flow coefficient of an aggregate is the time, expressed in seconds, for a specified volume of aggregate to flow through a given opening, under specified conditions using a standard apparatus.

Efflux Index (Flow Coefficient of Fine Aggregates) Apparatus consist of a control shutter, acylindrical feed hopper, a cylindrical body, a cone and a metal stand.



Dimensions	150x180x410 mm
Weight (approx.)	5 kg

# FLAKINESS INDEX

## Product Code

CFA-0450 Thickness Gauge (Flakiness Index BS)

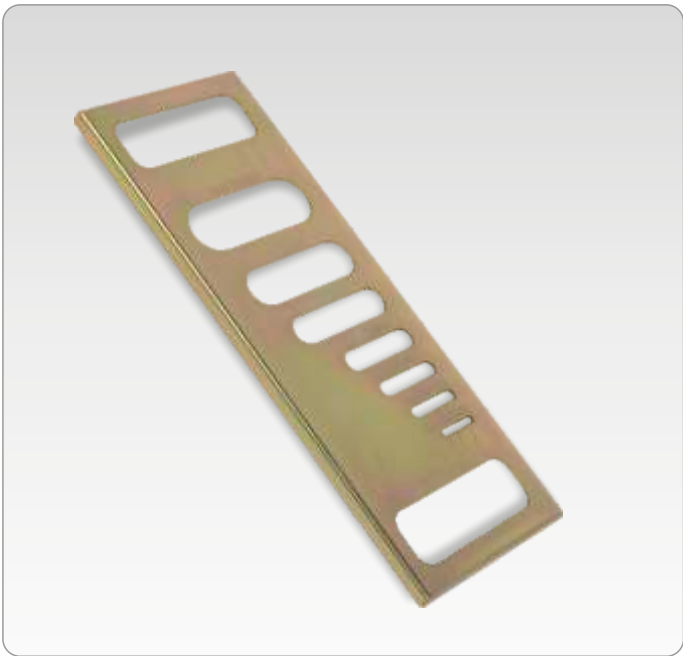
## Standards

BS 812-105.1

Thickness Gauge is used to determine if the aggregate particles are to be considered as flaky, i.e. their thickness is less than 0.6 of their nominal size.

The aggregate to be classified is separated into seven sieve fractions from 6.3 to 63 mm, and each fraction is examined separately. Slot sizes are 4.9 x 30 mm, 7.2 x 40 mm, 10.2 x 50 mm, 14.4 x 60 mm, 19.7 x 80 mm, 26.3 x 90 mm and 33.9 x 100 mm.

Dimensions	310x130x10 mm
Weight (approx.)	0,4 kg



# ELONGATION INDEX

## Product Code

CFA-0455 Length Gauge (Elongation Index BS)

## Standards

BS 812-105.2

Length Gauge (Elongation Index BS), is used for determining the elongation index of aggregates. The particle is elongated when its length (longest dimension) is more than 1.8 of the midsize of the sieve fraction. The aggregate to be classified is separated into six sieve fractions from 6.3 to 50 mm, and each fraction is examined separately.



Dimensions	370x70x70 mm
Weight (approx.)	0,82 kg

# SHAPE INDEX

## Product Code

CFA-0460 Shape Index Caliper

## Standards

EN 933-4; DIN 4226; CNR No.95; NLT 354

Shape Index Caliper is used for the determination of the shape factor of aggregates. Measurement range is 200 mm and graduated with 0.05 mm increments.



Dimensions	470x170x50 mm
Weight (approx.)	0,5 kg

FINES QUALITY

Product Code

CFA-0500E	Sand Equivalent Test Set, EN Model
CFA-0500A	Sand Equivalent Test Set, ASTM Model
CFA-0502E	Sand Equivalent Measuring Two Graduated Cylinder, EN
CFA-0502A	Sand Equivalent Measuring Graduated Cylinder, ASTM
CFGH-1425	Moisture Content Tin/ Sand Equivalent Measuring Tin with Lid, Aluminium, Ø:55 mm x h:35 mm
CFA-0506	Sand Equivalent Siphon Assembly
CFA-0507E	Sand Equivalent Test Plunger Assembly, EN
CFA-0507A	Sand Equivalent Weighted Foot Assembly, ASTM
CFA-0515	Washing and Flocculating Solution (Stock Solution), 1 lt

Standards

EN 933-8; ASTM D2419; AASHTO T176; UNI 8520-15; UNE 83131; CNR No. 27

The Sand Equivalent Test Sets are used to determine the fines of aggregates together with CFA-0510 Sand Equivalent Shaker.

CFA-0515 Washing and Flocculating (Stock Solution) should be ordered separately.



The Sand Equivalent Test Set is supplied complete with

- Transparent Graduated Acrylic Plastic Measuring Cylinder  
4 units for CFA-0500/A
- Transparent Acrylic Plastic Measuring Cylinder  
4 units for CFA-0500/E
- Siphon Assembly (Irrigator Tube with Valve, Solid Rubber Stopper, Siphon Tube and Hose, Blow Tube)
- Plastic Can, 5 L
- Weighted Foot Assembly
- Measuring Can
- Wide-Mouth Funnel
- Ruler
- Special Carrying Case

Dimensions	400x550x150 mm
Weight (approx.)	4,6 kg

FINES QUALITY

Product Code

CFA-0510 Sand Equivalent Shaker with Safety Cover

Models for 220-240V 50 Hz, 1 ph.	CFA-0510-T
Models for 110-120V 60 Hz, 1 ph.	CFA-0510-N
Models for 220-240V 60 Hz, 1 ph.	CFA-0510-K

Standards

EN 933-8; ASTM D2419; AASHTO T176; UNI 7446

CFA-0510 Sand Equivalent Shaker is used for the uniform shaking of Sand Equivalent Measuring Cylinders, at a specified rate and stroke.

The shaker is supplied complete with a timer. The horizontal movement, cycle and shaking time can easily be adjusted on the shaker to comply with EN or ASTM standards.



Sand Equivalent Shaker Timer

The Sand Equivalent Shaker is supplied complete with

- Safety Cover (conforming with CE directives)
- Timer ( on the Shaker )

Horizontal Movement	200 mm ± 10 mm (EN) 203.2 mm ± 1 mm (ASTM)
Cycle	90 ± 3 / 30 sec. (EN) 175 ± 2 / min. (ASTM)
Dimensions	800x360xx425 mm
Weight (approx.)	48 kg
Power	200 W

## FINES QUALITY (Cleanliness)

### Product Code

CFA-0530	Methylene Blue Test Set, 110-230V 50-60 Hz, 1ph
CFA-0531Y	Type A Filter Paper for Methylene Blue Test, Ø:125 mm, 100 pcs/pack
CFA-0532	Type B Filter Paper for Methylene Blue Test, Ø:125 mm, 100 pcs/pack
CFA-0533	Type C Filter Paper for Methylene Blue Test, Ø:125 mm, 100 pcs/pack
CFGC-0885Y	Type A Methylene Blue Powder, 100 g
CFGC-0886	Type B Methylene Blue Powder, 100 g, Dye content $\geq 82$ % (spectrophotometrically)
CFGC-0880	Kaolinite

### Standards

EN 933-9; NF P94-068; UNE 83 180; UNI 8520-15

The Test Set is used for determining the Methylene Blue value of 0/2 mm fraction in fine aggregates.

CFGC-0886 Type B methylene blue powder has a dye content  $\geq 82$  %.

Filter paper, methylene blue powder and kaolinite should be ordered separately.



CFA-0530

CFA-0531Y	Ø:125 mm
CFA-0532	100 g/m <sup>2</sup> , 0.20 mm thickness, filtration speed 75s, pore size 4µm.
CFA-0533	Quantitative, ash free max. 0,007%, 95 g/m <sup>2</sup> , thickness nominal 0.210 µm, filtration speed 340s (Herzberg), pore size 8 µm.

### Set Consists of

- High Speed Agitator Motor, 400/600 r.p.m.
- Stirring Propeller, Ø 70 mm 4 flanks
- Glass Burette, 50 ml x 0.1 ml
- Burette Holder and Stand
- Glass Rod, Ø 8x300 mm
- Plastic Beaker, 1000 ml

Dimensions	500x870x270 mm
Weight (approx.)	13 kg



CFGC-0885Y

CFGC-0880



CFA-0531Y



CFA-0532



RESISTANCE to FRAGMENTATION / DEGRADATION

Product Code

CFA-0600-T	Los Angeles Abrasion Machine
CFA-0601-T	Los Angeles Abrasion Machine with Soundproof Safety Cabinet
CFA-0602E	Los Angeles Abrasion Charges EN, 12 pcs.
CFA-0602A	Los Angeles Abrasion Charges ASTM/AASHTO, 12 pcs.

Models for 220-240V 50 Hz, 1 ph.	CFA-0600-T	CFA-0601-T
Models for 110-120V 60 Hz, 1 ph.	CFA-0600-N	CFA-0601-N
Models for 220-240V 60 Hz, 1 ph.	CFA-0600-K	CFA-0601-K

Standards

EN 1097-2, 12697-17, 13450; ASTM C131, C535; AASHTO T96



CFA-0600



Control Panel



Drum Position  
Lock with Safety Switch

	CFA-0600	CFA-0601
Dimensions	850x1000x1100 mm	1100x1150x1250 mm
Weight (approx.)	380 kg	505 kg
Power	800 W	800 W

The Los Angeles Abrasion Machine is used for determination of the aggregates resistance to fragmentation. The machine consists of an electronic control unit and a rolled steel drum having an inside diameter of 711 mm and internal length of 508 mm. The drum is rotated at a speed of 31-33 r.p.m. The internal shelf provided with the machine confirms to ASTM, AASHTO and EN standards. The machine is equipped with an automatic counter, when the preset revolution count is reached, the machine will stop automatically. The drum is equipped with an interlock device which allows the operator to lock the drum into position for easy loading/unloading of the sample.

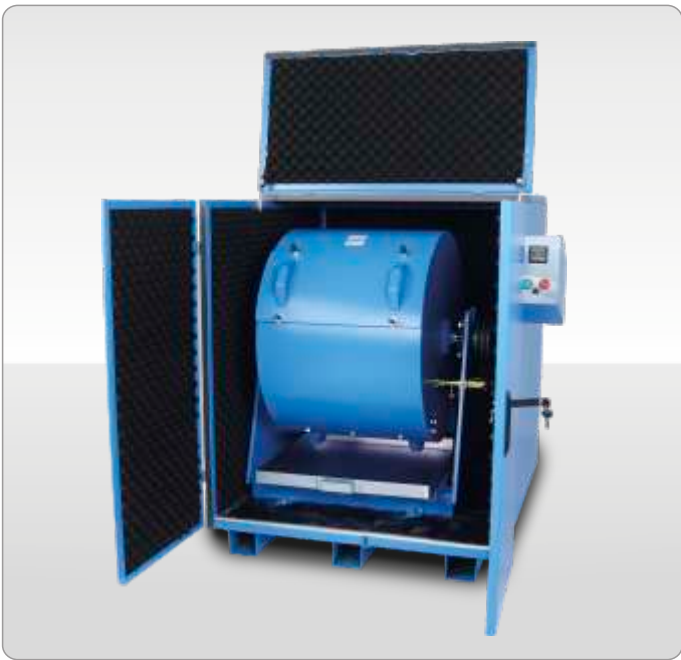
A steel tray is supplied with the machine for easy discharge of specimen and abrasive charges.

The standard model can be supplied with a safety/noise reduction cabinet. The cabinet is lined internally with soundproofing material to reduce sound level conforming to CE directives. The cabinet must be ordered with the Los Angeles machine if required, as the electronic control unit will be installed on the safety cabinet at the time of manufacture. The cabinet is equipped with an electric safety device which automatically stops the rotation of the drum when the door is opened, conforming to CE directives.

- Abrasion balls and 1.6 mm, 10mm, 11.2mm (or 12.5mm) and 14 mm sieves acc. to EN standard,
- Abrasion balls, 1.7 mm( No.12) sieve and other sieves which chance depending the grain size acc. to ASTM and AASHTO standards, should be ordered separately.

The Los Angeles Abrasion Machine is supplied complete with

- Steel Tray



CFA-0601

## RESISTANCE to ABRASION

### Product Code

CFA-0610	Wide Wheel Abrasion Testing Machine
CFA-0611	Abrasive Corundum Sand 25 kg for CFA-0610 and CFA-0613
CFA-0612	Calibration Marble for CFA-0610
CFA-0613	Narrow Wheel Abrasion Testing Machine
CFA-0614	Mould, EN 12808-2, Polyethylene, 100 ±1x100 ±1x10 ±1 mm, for CFA-0613

### Standards

Wide Wheel: EN 1338, 1339, 1340, 1341, 1342, 13748-1, 13748-2, 14157  
 Narrow Wheel: 10545-6, 12808-2

CFA-0610 Wide Wheel Abrasion Testing Machine is designed for determining the resistance to abrasion/wear of natural stones and concrete products used for paving. The abrasion wheel is 70 mm thick and rotates at a speed of 75 rpm. The machine is equipped with a digital counter which stops the machine at the end of a preset number of revolutions.

CFA-0613 Narrow Wheel Abrasion Testing Machine is designed for determining the resistance to abrasion of unglazed tiles, grouts used for tiles and clay pavers. The abrasion wheel is 10 mm thick.

Abrasive corundum sand, calibration marble (boloneisse) and mould (for EN 12808-2) should be ordered separately.



Models for 220-240V 50 Hz, 1 ph.	CFA-0610-T	CFA-0613-T
Models for 110-120V 60 Hz, 1 ph.	CFA-0610-N	CFA-0613-N
Models for 220-240V 60 Hz, 1 ph.	CFA-0610-K	CFA-0613-K

Dimensions	620x670x1350 mm
Weight (approx.)	130 kg
Power	370 W

## RESISTANCE to ABRASION

### Product Code

CFA-0615-T	Abrasion Testing Machine According to Böhme, 220-240 V 50 Hz, 1 ph (60 Hz version is available upon request)
CFA-0616	Abrasive Sand, 50 kg pack for CFA-0615

### Standards

EN 1338, 1339, 1340

CFA-0615 the Abrasion Testing Machine according to Böhme is used for determining the abrasion resistance of concrete and natural stone products used for internal or external paving.

The machine consists of a grinding wheel of approx. 750 mm diameter, a removable testing weight of 30 kg and a clamping device for the sample. The machine is equipped with an adjustable counter (30 ± 1 rpm) and an automatic cut-off system which stops the machine after 22 rotations.

CFA-0616 Abrasive Sand should be ordered separately.



Dimensions	1500x850x1350 mm
Weight (approx.)	300 kg
Power	750 W

CRUSHING VALUE

Product Code

CFA-0620E	Micro-Deval Apparatus, EN
CFA-0621E	Stainless Steel Drum, EN, Ø 200x154 mm ID, for CFA-0620E
CFA-0622E	Stainless Steel Drum, EN, Ø 200x400 mm ID, for CFA-0620E
CFA-0623E	Micro-Deval Abrasion Charges, Stainless Steel, EN, Ø10 mm 20 kg Pack
CFA-0624B	Micro-Deval Abrasion Ball Set, BS, (3 pcs. balls)

Models for 220-240V 50 Hz, 1 ph.	CFA-0620E-T
Models for 110-120V 60 Hz, 1 ph.	CFA-0620E-N
Models for 220-240V 60 Hz, 1 ph.	CFA-0620E-K

Standards

EN 1097-1, 13450

The Micro Deval Testing Machine is used to determine the resistance to wear of aggregates. The machine consists of a steel frame, two stainless steel cylinders and 10 mm diameter steel spheres and an automatic digital counter which allows machine to stop automatically at the preset number of revolutions.

Stainless steel drums are rotating at a speed of 100 ± 5 r.p.m.

The machine can accept up to 4 pcs. Ø200x154 mm (Int. Dim.) drums or 1 pcs. Ø 200x400 mm (Int. Dim.) drums.

Stainless steel abrasion charges Ø200x400 mm steel drums and 1,6 mm sieve should be ordered separately.

CFA-0620E Micro-Deval Apparatus is supplied complete with

- Stainless Steel Drum, Ø 200x154 mm, 4 pcs.

Dimensions	1050x450x950 mm
Weight (approx.)	105 kg
Power	550 W



Product Code

CFA-0620A	Micro-Deval Apparatus, ASTM
CFA-0621A	Stainless Steel Jar, ASTM, for CFA-620A
CFA-0623A	Micro-Deval Abrasion Charges, ASTM, Ø9,5 mm 2 pcs. of 6 kg Packed

Models for 220-240V 50 Hz, 1 ph.	CFA-0620A-T
Models for 110-120V 60 Hz, 1 ph.	CFA-0620A-N
Models for 220-240V 60 Hz, 1 ph.	CFA-0620A-K

Standards

ASTM D6928, D7428; AASHTO T327

The Micro Deval Testing Machine is used to determine the resistance to wear of aggregates.

The machine consists of a steel frame, two stainless steel jar stainless steel spheres (2 pcs) and an automatic digital counter which allows machine to stop automatically at the preset number of revolutions.

Stainless steel jars are rotating at a speed of 100 ± 5 r.p.m.

1,18 mm sieve should be ordered separately.

CFA-0620A Micro-Deval Apparatus is supplied complete with;

- Stainless Steel Jar, ASTM, 2 pcs.
- Abrasion Charges, ASTM, Ø9,5 mm, 2 pcs. of 6 kg packed

Dimensions	1050x450x950mm
Weight (approx.)	95 kg
Power	550 W





## CRUSHING VALUE

### Product Code

CFA-0630	Aggregate Crushing Value (ACV) Set Ø 150 mm BS
CFA-0631	Aggregate Crushing Value Cylinder Ø 150 mm for CFA-630
CFA-0632	Aggregate Crushing Value Base Plate for CFA-630
CFA-0633	Aggregate Crushing Value Plunger for CFA-630
CFA-0634	Aggregate Crushing Value Cylindrical Measure for CFA-630
CFC-0408	Tamping Rod Ø 16x600 mm
CFA-0640	Aggregate Crushing Value (ACV) Set Ø 75 mm BS
CFA-0641	Aggregate Crushing Value Cylinder Ø 75 mm for CFA-640
CFA-0642	Aggregate Crushing Value Base Plate for CFA-640
CFA-0643	Aggregate Crushing Value Plunger for CFA-640
CFA-0644	Aggregate Crushing Value Cylindrical Measure for CFA-640
CFA-0645	Tamping Rod Ø 8x300 mm



CFA-0630

### Standards

BS 812:110, 812-111

The Aggregate Crushing Value (ACV) Test Set provides a relative measure of the resistance of an aggregate to crushing under a gradually applied compressive load. Each set consists of steel cylinder, plunger, base plate, cylindrical measure and tamping rod. All parts of the apparatus are powder coated or galvanized steel, heat treated and ground before manufacturing to make it durable and reliable. For aggregates smaller than 10 mm, a 75 mm diameter cylinder and associated equipment is available.

CFA-0630 and CFA-0640 Test Sets are also used for the Ten Percent Fines Value (TFV) of aggregates according to BS 812:111.



CFA-0640

The Aggregate Crushing Value (ACV) Set is supplied complete with Cylinder, Base Plate, Plunger, Cylindrical Measure, Tamping Rod

	CFA-0630	CFA-0640
Dimensions	250x250x600 mm	120x120x350 mm
Weight (approx.)	29 kg	6 kg

## IMPACT VALUE

### Product Code

CFA-0650	Aggregate Impact Value (AIV) Testing Apparatus
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### Standards

BS 812:112

The Aggregate Impact Value Testing Apparatus, meets with BS 812, it is robustly designed to determine the Aggregate Impact Value (AIV) of aggregates which provides a relative measure of the resistance of an aggregate to sudden shock or impact. The counter fitted to the machine automatically records the number of blows delivered to the sample, manufactured from heavy duty plated steel to resist corrosion.

The Aggregate Impact Value (AIV) Apparatus is supplied complete with

- Cylindrical Measure, Ø 75 mm
- Steel Tamping Rod, Ø 16x600 mm

Dimensions	450x350x850 mm
Weight (approx.)	52 kg





BULK DENSITY

Product Code

- CFA-0701E Density (Unit Weight) Measure 1 lt. EN
- CFC-0603E Density (Unit Weight) Measure 3 lt. EN
- CFA-0705E Density (Unit Weight) Measure 5 lt. EN
- CFC-0607E Density (Unit Weight) Measure 7 lt. EN
- CFC-0610E Density (Unit Weight) Measure 10 lt. EN
- CFC-0615E Density (Unit Weight) Measure 15 lt. EN
- CFA-0720E Density (Unit Weight) Measure 20 lt. EN
- CFC-0630E Density (Unit Weight) Measure 30 lt. EN

Standards

EN 1097-3, 12350-6

Density (Unit Weight) Measures are used to determine the weight per cubic meter of bulk or compacted aggregates.

The Density Measures are manufactured from heavy duty steel complying with the related standard. Available in 1, 3, 5, 7, 10, 15, 20 and 30 lt capacity models to comply with the relevant standards. The measures are coated against corrosion.



	Dimensions	Weight (approx.)
CFA-0701E	100x170x150 mm	2.8 kg
UTC-0603E	150x210x210 mm	3.7 kg
CFA-0705E	170x240x250 mm	5.0 kg
UTC-0607E	190x260x270 mm	6.3 kg
UTC-0610E	210x290x310 mm	7.7 kg
UTC-0615E	250x340x330 mm	10 kg
CFA-0720E	270x370x380 mm	12 kg
UTC-0630E	310x410x430 mm	20 kg

SPECIFIC GRAVITY

Product Code

- CFA-0755 Sand Absorption ( Abraham Cone ) Set
- CFA-0756 Sand Absorption ( Abraham ) Cone
- CFA-0757 Tamping Rod Ø 25 mm

Standards

EN 1097-6; BS 812-2; UNI 8520-13-16; ASTM C128; NLT 154; DIN 12039

The Sand Absorption Abraham Cone Set is used in determining the specific gravity and water absorption of fine aggregates smaller than 10 mm. The apparatus is manufactured from plated steel for protection against corrosion. The cone dimensions are: upper diameter of 40 mm, lower diameter of 90 mm and 75 mm height, and the tamping rod has a 25 mm base diameter and approx. 340 g in weight.



Dimensions	90x90x180 mm
Weight (approx.)	0.5 kg

# RESISTANCE to WEAR by ABRASION from STUDDED TIRES

## Product Code

CFA-0750	Nordic Abrasion Machine
CFA-0751	Steel Balls, Ø 15 mm dia, 7 kg.
CFA-0752	Steel Balls, Ø 11.1 mm dia, 3,5 kg.
CFA-0753	Stainless Steel Drum for CFA-0750

Models for 220-240V 50-60 Hz, 1 ph.	CFA-0750
Models for 110-120V 60 Hz, 1 ph.	CFA-0750-N

## Standards

EN 1097-9; UNI 8520-13-16

CFA-0750 Nordic Abrasion Machine has been developed for testing the resistance of aggregates to wear by abrasion from studded tyres. The test is performed on natural or artificial stones and aggregates between 11.2 mm and 16.0 mm.

The test consists of a rotating aggregate in a drum containing steel abrasive balls and water. The machine consists of an electronic control unit and a rolled stainless steel drum having an internal diameter of 206.5 mm, internal length of 335 mm and thickness of 6 mm. The drum is rotated at a speed of  $90 \pm 3$  r.p.m. 3 wings are installed inside of the drum to allow the balls and aggregates to be mixed properly.

The abrasion loss rate of aggregates is calculated after the specified number of revolutions stated in the relevant standard.

11,1 mm diameter steel balls (3.5 kg) should be ordered separately.

The Nordic Abrasion Machine is supplied complete with

- Stainless Steel Drum, 1 pcs.
- Steel Balls, Ø 15 mm, 7 kg

Dimensions	720x400x650 mm
Weight (approx.)	70 kg
Power	600 W



PARTICLE DENSITY

Product Code

- CFW-1000 Specific Gravity Frame
- CFW-1003 Plastic Water Tank
- CFW-1005 Cradle for Hardened Concrete Specimens
- CFW-1008 Density Basket, 120 mm dia x 160 mm deep, 3.35 mm stainless steel mesh
- CFW-1010 Density Basket Ø 200 mm x 200 mm deep, 3.35 mm stainless steel mesh
- CFW-1012 Density Basket, 250 mm dia x 250 mm deep, 3.35 mm (No.6) stainless steel mesh
- CFW-1015 Density Basket, 200 mm dia x 180 mm deep, 2.00 mm (No:10) stainless steel mesh

Standards

EN 1097-6, 12390-7; ASTM C20, C127, C642, C830, D1188, D2041, D2726; AASHTO T85, T166, T209, T275

The Specific Gravity Frame is used in conjunction with a suitable electronic balance for specific gravity determination of fresh and hardened concrete and aggregates.

Consisting of a purpose built robust frame designed to support the electronic balance (not supplied), a wire basket and plastic water tank. The lower part of the frame incorporates a moving platform, which carries the water tank allowing the test specimens to be weighed in both air and water.

Any type of electronic balance fitted with under-bench weighing facility can be used.

Balance, Cradle and Density Basket should be ordered separately.

The Specific Gravity Frame is supplied complete with

- A water tank

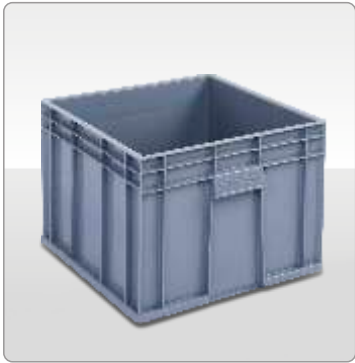
Dimensions	600x500x1100 mm
Weight (approx.)	25 kg



CFW-1005



CFW-1010



CFW-1003

## PARTICLE DENSITY

### Product Code

CFA-1120 Pyknometer (Glass Jar Type)

### Standards

BS 812:2, 1377-2; ASTM C128, D854; AASHTO T84

The Pyknometer is used for the determination of the relative density and water absorption for aggregates of 10 mm nominal size and smaller.

Dimensions	Ø100x200 mm
Weight (approx.)	0,5 kg



## PARTICLE DENSITY

### Product Code

CFGG-1600 Pyknometer (Bottle Type) 250 ml  
 CFGG-1605 Pyknometer (Bottle Type) 500 ml  
 CFGG-1610 Pyknometer (Bottle Type) 1000 ml  
 CFGG-1615 Pyknometer (Bottle Type) 2000 ml  
 CFGG-1620 Pyknometer (Bottle Type) 3000 ml  
 CFGG-1625 Pyknometer (Bottle Type) 5000 ml  
 CFGG-1630 Double Edged and Capillary Tubed Funnel

### Standards

EN 1097-6

Bottle Type Pyknometers are used to determine the specific gravity of aggregates. 250 ml, 500 ml, 1000 ml, 2000 ml, 3000 ml and 5000 ml.



	Dimensions	Weight (approx.)
CFGG-1600	Ø110x270 mm	0.5 kg
CFGG-1605	Ø130x270 mm	0.7 kg
CFGG-1610	Ø150x270 mm	1 kg
CFGG-1615	Ø180x330 mm	1.25 kg
CFGG-1620	Ø200x340 mm	1.35 kg
CFGG-1625	Ø250x400 mm	1.60 kg
CFGG-1630	Ø50X270 mm	0.2 kg

The Bottle Type Pyknometer is supplied complete with

- Double Edged and Capillary Tubed Funnel



PARTICLE DENSITY

Product Code

CFA-0806   MICROLANCE Instant Moisture and Temperature Tester

CFA-0806 MICROLANCE Instant Moisture and Temperature Tester is used for the instant on-site determination of moisture and temperature of sands, aggregates, building materials, minerals and mixes from small quantities to hundreds of tons.

The instrument is reliable and easy to use, taking moisture readings up to 1 meter depth by simply inserting the lance into the test material. Instant readings are monitored on the digital display and the built-in computer allows the user to monitor a wide range of materials and water contents.

The CFA-0806 Microlance is supplied with standard calibration values for sands and aggregates but it can also be calibrated for different material or mixture with the Autocal functionality. The unit is supplied complete with a calibration certificate.

	Range	Resolution	Accuracy
Moisture	0 to 25 %	0.1 %	better than 0.5 %
Temperature	-20 to 60°C	0.1°C	better than 0.5°C

- Moisture measurement with temperature compensated electric field
- Temperature measurement according to BS 1904 and DIN 751
- Platinum resistance detector
- Works with 4 x 1.5 V AA cells (or equivalent)

Dimensions	100x100x1200 mm
Weight (approx.)	2 kg



## POLISHED STONE VALUE / RESISTANCE to POLISHING

### Product Code

CFA-0810	Accelerated Polishing Machine (PSV)
CFA-0811	Specimen Mould with a Cover, for CFA-0810
CFA-0812	Corn Emery 5 kg, for CFA-0810
CFA-0813	Flour Emery 5 kg, for CFA-0810
CFA-0814	Polished Stone Value PSV Control Stone, graded version (low percentage of waste material), 4 kg bag, for CFA-0810
CFA-0815	Friction Tester Reference Stone (Criggion Stone) 20kg Ungraded, for CFA-0810

Models for 220-240V 50-60 Hz, 1 ph	CFA-0810
Models for 110-120V 60 Hz, 1 ph.	CFD-0810-N

### Standards

EN 1097-8; BS 812:114:1989

Accelerated Polishing Machine (PSV) is used to simulate the polishing action of vehicle tyres on a road surface, for coarse aggregate which is going to be used as asphalt road surface covers.

Abrasive Corn Emery is fed to the point of contact of the wheel on the test surface for 3 hours, followed by feeding Emery Flour to polish the surface being tested for a further 3 hours. Subsequent skid tests are carried out on the test samples using suitable portable skid test equipment.

CFA-0812 Corn Emery, CFA-0813 Flour Emery, CFA-0814 PSV Control Stone, CFA-0815 Friction Tester Reference Stone and additional CFA-0811 Specimen Mould with a Cover should be ordered separately.

The Accelerated Polishing Machine is supplied complete with

- Specimen Mould with a Cover (1 pcs.)
- Container - 2 pcs. For setting the mass (one for flour and one for corn emery)
- Allen Key Set
- Rubber Rings (2 pcs.)

Road Wheel Speed	315 to 325 rpm
Dimensions	940x500x1840 mm
Weight (approx.)	235 kg
Power	850 W



## SKID RESISTANCE & FRICTION

### Product Code

CFA-0830E	Skid Resistance and Friction Test Set (Skid Tester), EN 1097-8
CFA-0830A	Skid Resistance and Friction Test Set (Skid Tester), ASTM E303
CFA-0832-TRL	Mounted Rubber Slider, TRL rubber, 32 mm width for PSV test (PSV laboratory). Complete with conformity certificate for CFA-0830
CFA-0833-TRL	Mounted Rubber Slider, TRL rubber, 76 mm width for site use, complete with conformity certificate, for CFA-0830
CFA-0832-4S	Mounted Rubber Slider, 4S rubber, 32 mm width
CFA-0833-4S	Mounted Rubber Slider, 4S rubber, 76 mm width
CFA-0834	Metal Base Plate for Polished Stone Value Specimen Clamping
CFA-0835	Metal Base Plate for Surface Friction Properties, for Natural Stones (EN 1341, EN 1342) and Concrete Paving, Blocks (EN 1338)

### Standards

EN 1097-8, 1338, 1341, 1342, 13036-4; ASTM E303

The Skid Resistance and Friction Testers are used for the measurement of surface friction properties. The apparatus is suitable for both site and laboratory applications and for Polished Stone Value tests using curved specimens from accelerated polishing tests with the Accelerated Polishing Machine (CFA-0810). CFA-0830E can also be used for testing Paving Stones (EN 1341, EN 1342) and Paving Blocks (EN 1338).

The apparatus consist of an adjustable pendulum arm, and a spring loaded rubber slider (see accessories) mounted on the end of the arm.

Rubber sliders should be ordered separately.



The Skid Resistance and Friction Tester is supplied complete with;

- Additional Scale, for Test on Polished Stone Value Specimens
- Rubber Sliders, for Site Use - 3 Units
- Thermometer, 0 to +220°C for Surface Temperature Measurement
- Washing Bottle, for Surface Wetting - 1 L
- Tool Set with Case for Machine Assembly
- Rule for Sliding Length Verification
- Traceability Certificate of Conforming to EN 1097-8 or ASTM E303
- Carrying Case

## MAGNESIUM SULPHATE / SODIUM SULPHATE TESTS

### Product Code

CFA-0840	Magnesium Sulphate / Sodium Sulphate Test Water Bath
CFW-1008	Density Basket, Ø120 x 160 mm deep 3,35 mm mesh, EN/ASTM
CFGH-1460	Container for Density Basket Ø160 x 200 mm deep, Aluminium for CFW-1008, EN/ASTM
CFW-1017	Density Basket, Ø230 x 260 mm deep 4 mm stainless steel mesh, EN
CFGH-1465	Container for Density Basket Ø270 x 300 mm deep, Aluminium for CFW-1017, EN
CFGG-2415	Hydrometer 1100-1200 g/ml, ASTM
CFGG-2420	Hydrometer 1200-1300 g/ml, EN/ASTM
CFGC-0850	Sodium Sulphate, 1 kg, ASTM
CFGC-0915	Magnesium Sulphate, 1 kg, EN/ASTM

Models for 220-240V 50-60 Hz, 1 ph	CFA-0840
Models for 110-120V 60 Hz, 1 ph.	CFA-0840-N

### Standards

EN 1367-2, 13450; ASTM C88; UNI 8520-10; UNE 7136



Magnesium Sulphate and Sodium Sulphate Tests are used for determining the soundness of aggregates when subjected to weathering action such as freezing and thawing in concrete or other applications. Only the specific products are listed above for the test. It should be noted that other equipment like ovens, sieves, balances etc. are also required to perform these tests.

Sodium Sulphate can be used instead of Magnesium Sulphate according to the ASTM standard. CFGG-2415 Hydrometer 1100-1200 g/ml is required for the test with Sodium Sulphate Test.

The temperature of test solution is automatically adjusted to required temperature with a microprocessor type sensor placed in the water bath. The second sensor can be placed in the lever lid containers or stainless steel immersion container by user. The temperature data of water bath and the temperature test solution are displayed in real time on digital screen with 0.1°C resolution.

Homogenous temperature distribution can be obtained with water circulation pump that makes feedback.

Magnesium Sulfate / Sodium Sulfate Test Water Bath has (20±2) °C accuracy and can be used as general purpose water bath that temperature is between 15-60 °C temperature

Supplied complete with the immersion container with the cover.

Density Baskets, Container for Density Basket, Hydrometer, Magnesium or Sodium Sulphate should be ordered separately.

	Dimensions	Weight
CFA-0840	660x550x1080 mm	60 kg
Chamber of Bath	560x460x500 mm	--
CFW-1008	120x120x160 mm	1 kg
CFGH-1460	Ø160x235 mm	0,25 kg
CFW-1017	Ø230x260 mm	1 kg
CFGH-1465	Ø270x300 mm	0,25 kg
CFGG-2415	30x30x300 mm	0,1 kg
CFGG-2420	30x30x300 mm	0,1 kg
Immersion Container	330x330x330 mm	4 kg



CFW-1008



CFGH-1460



## RESISTANCE to FREEZING & THAWING

### Product Code

CFD-1440 Freezing and Thawing Chamber for Slab Tests 280 L

Models for 220-240V 50-60 Hz, 1 ph	CFD-1440
Models for 110-120V 60 Hz, 1 ph.	CFD-1440-N

### Standards

EN 1338, 1339, 1340, 1367-6, 13748-2, CEN/TS 12390-9  
(Slab Test)

The chamber is equipped with a user defined program including up to 16 steps. Time can be adjusted to 999 minutes for each step of the program. The temperature range of the cabinet is -30°C to +65°C.

The temperature is controlled by a sensor which can be immersed either into the sample or into the water which the sample is placed into or into the salty water solution placed on the sample before starting the test. The calibration of the sensor is carried out using the user friendly menu.

The distribution of temperature in the cabinet is performed using an integral fan.

Free of charge CFU Software for transferring the data real-time to a computer is supplied complete with the cabinet and data can be monitored during the tests. Data can be converted to an excel report or to a graph.

The condenser of the cabinet is fitted with an air cooled hermetic cooler. The gas used for the cooler does not include CFC's.

The control unit is electronic and equipped with digital display with 0.1°C temperature resolution. The accuracy of cabin temperature distribution lower than 2°C.

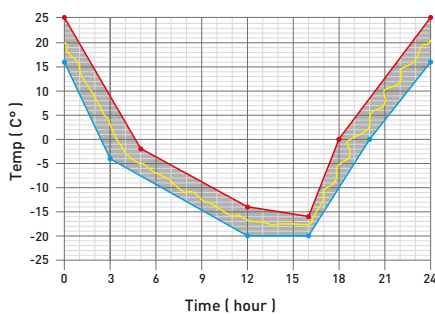
The user can preset the time and target temperature of each ramp and the number of each set by using the control unit.

CFD-1440 Freezing and Thawing Chamber is supplied complete with 3 pcs. displaceable shelves and a CFU software yazılım (USOFT-1440).



The control unit is electronic and equipped with digital display with 0.1°C temperature resolution.

AUTOMATIC SETTINGS			
STEP	RAMP(min)	TEST(min)	TEMP(°C)
1	4	0	-20
2	1	0	+0
3	4	0	+20
4	0	0	+0
5	0	0	+0
6	0	0	+0
7	0	0	+0
8	0	0	+0
9	0	0	+0
10	0	0	+0
BACK	Repeat Set: 5	AUTO TEST START	



The user can preset the time and target temperature of each ramp and the number of each set by using the control unit.

Internal Dimensions	480x1260x460 mm
External Dimensions	600x1900x600 mm
Weight (approx.)	100 kg
Power	1800 W

RESISTANCE to FREEZING & THAWING

Product Code

CFD-1445    Freezing and Thawing Chamber  
for Slab Tests 500 L

Models for 220-240V 50-60 Hz, 1 ph	CFD-1445
Models for 110-120V 60 Hz, 1 ph.	CFD-1445-N

Standards

EN 1338, 1339, 1340, 1367-6, 13748-2,  
CEN/TS 12390-9

Freezing and Thawing Chamber, 500 L, Freezing in Air and Thawing in Water.

-30 to 65°C temperature range PID digital control system, refrigeration and heating unit, gasketed single door, stainless steel interior, fan circulated. Supplied with 1 pcs. adjustable shelves and a CFU software. 220-240V, 50-60Hz, 1ph.

Internal Dimensions	480x1260x460 mm
External Dimensions	600x1900x600 mm
Weight (approx.)	100 kg
Power	1800 W

CFD-1445  
Freezing and Thawing  
Chamber 500 lt.  
Freezing in Air and  
Thawing in Water



DRYING SHRINKAGE

Product Code

- CFA-0850E Three Gang Prism Shrinkage Mould 50x50x200 mm
- CFA-0851E Spare Steel Inserts for CFA-0850, 12 pcs.
- CFA-0856E Reference Rod 205 mm Long with 6 mm Tips
- CFA-0858 Reference Rod, 205 mm Long with 8 mm Tips

Standards

EN 1367-4; UNI 8520-22

The Three Gang Shrinkage Mould is used for the determination of the effect of aggregates on the drying, shrinkage and length change of hardened concrete when used together with the CFU Length Comparators (CFCM-0200, CFCM-0210 or CFC-1170).

The mould is matchmarked and protected with anti-corrosion oil. Reference rod and spare steel inserts should be ordered separately.

Shrinkage Mould is supplied complied with the steel inserts screwed on.



CFA-0850E



CFA-0856E

Dimensions	330x220x70 mm
Weight (approx.)	15 kg

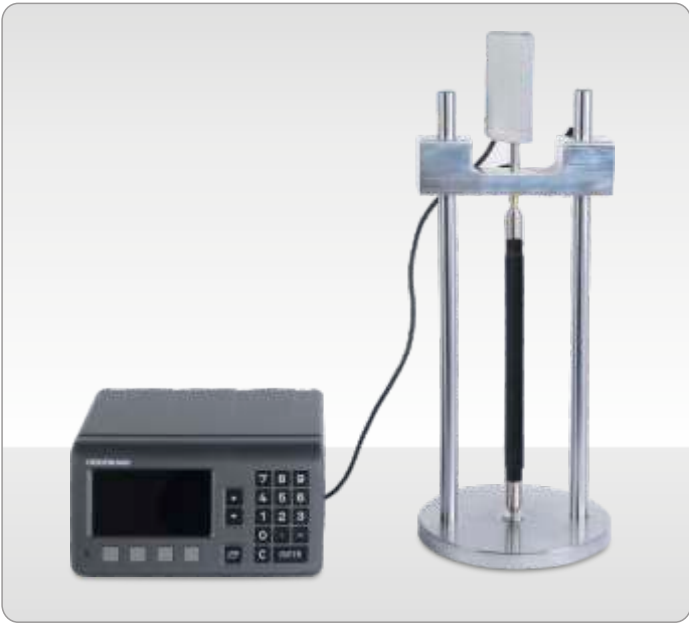
DRYING SHRINKAGE & ALKALI-SILICA REACTIVITY

Product Code

- CFCM-0200 Digital Length Comparator
- CFCM-1170 Large Type Digital Length Comparator
- CFCM-0210 Length Comparator with Heidenhain Length Measuring Sensor and Digital Readout Unit

Standards

EN 1367-4, 12617-4, 12808-4; ASTM C151, C157, C227, C311, C341, C342, C441, C452, C490, C531, C596, C806, C878; BS 1881:5, 6073



Length Comparators are used to determine the length changes on different type of hardened mortar and concrete prisms with different sized.

The sets consist of a length measuring frame with measuring device attached to it. The comparators comes with 3 different models, CFCM-0200 and CFC-1170 are with 0.001 mm x 12,7 mm digital dial gauge and CFCM-0210 is with special 0.0001 mm x 30 mm transducer and readout unit. Horizontal clearance of CFCM-0200 is 150mm and CFC-1170 is 220mm.

All information about shrinkage moulds, steel inserts and reference rods can be seen on pages of CFCM-0029, CFCM-0033, CFA-0850, CFC-1153, CFC-1155 and CFC-1161.

Reference rods and moulds should be ordered separately according to test to be performed.



	Dimensions	Weight (approx.)
CFCM-0200	180x180x450 mm	6 kg
CFC-1170	250x250x450 mm	8 kg
CFCM-0210	250x250x650 mm	8 kg

## ALKALI-SILICA REACTIVITY

### Product Code

CFA-0880	Alkali Aggregate Reaction Bath
CFA-0882	Alkali Specimens Can, stainless steel, with an hanger which can hold 3 pcs. 25x25x285 mm specimens.
CFCM-0033A	Two Gang Prism Shrinkage Mould, 25x25x285 mm
CFCM-0034	Steel Insert for ASTM C490, 12 pcs.
CFCM-0035	Reference Rod 295 mm Long with Convex Hemispherical End
CFCM-0200	Digital Length Comparator
CFCM-0210	Length Comparator with Heidenhain Length Measuring Sensor and Digital Readout Unit
CFC-1170	Large Type Digital Length Comparator

Models for 220-240V 50-60 Hz, 1 ph.	CFA-0880
Models for 110-120V 60 Hz, 1 ph.	CFA-0880-N

### Standards

CANADA CSA-A23.2-25A; For Moulds: ASTM C227, C490, C1260

The Alkali Aggregate Reaction Bath is used to keep 25x25x285 mm samples in NaOH (Sodium Hydroxide) or in any other solution at a specified temperature. The temperature can be adjusted between ambient to 80°C by using the digital controller.

The chamber of the bath is made of stainless steel and has a capacity of 36 specimens (25x25x285 mm).

CFA-0880 is supplied complete with 3 pcs. stainless steel alkali specimens cans (CFA-0882). Each can has a stainless steel hanger which can hold 3 pcs. 25x25x285 mm specimens. Additional alkali specimens cans should be ordered separately.

CFCM-0033 is used to determine the potential alkali reactivity of cement-aggregate combinations (mortar-bar method). This mould is also used for determining the length change of hardened cement paste, mortar and concrete.

The test also requires CFCM-0200 or CFCM-0210 or CFC-1170 Length Comparators.

CFA-0880 Aggregate Reaction Bath can also be used as a general purpose water bath.

	CFA-0880
Dimensions	550x1000x800 mm
Weight (approx.)	70 kg
Power	2000 W



CFA-0880



CFA-0880



## CHLORIDE CONTENT

### Product Code

CFGE-4320 Quantab Chloride Titrator Type 1175, 40 Strips  
CFGE-4322 Quantab Chloride Titrator Type 1176, 40 Strips

### Standards

BS 812:117, BS 1377:3

The Quantab Chloride Titrators are used for quick determination of water soluble chloride salts present in fine aggregates and soils.

	Type 1175	Type 1176
Range	0.005% to 0.1% NaCl	0.05% to 1% NaCl
Dimensions	75x75x120 mm	
Weight (approx.)	0.1 kg	



## ORGANIC SUBSTANCES / HUMUS CONTENT

### Product Code

CFA-0885 Reference Colours Glass  
CFGG-1705 Graduated Impurities Test, Glass Bottle 500 ml, ASTM  
CFGG-1710 Graduated Impurities Test, Glass Bottle 1000 ml, ASTM  
CFGG-1720 Cylindrical Glass Bottle with Cork Stopper, for Organic Impurities, 450 ml, EN  
CFGG-0840 Sodium Hydroxide 1 kg

### Standards

EN 1744-1; ASTM C40

The Reference Colour Glass consists of 5 organic glass scales mounted in a plastic holder, which is used for the comparison of the colour results from the relevant test.



CFA-0885



CFGG-1705 and CFGG-1710



CFGG-1720

The 500 ml and 1000 ml capacity Graduated Glass Bottles are used for making reference standard colour and test solution according to the ASTM standard.

CFGG-1720 450 ml Cylindrical Glass Bottle is used for determination of organic impurities as required in the EN standard.