BAMR — Quality Control Instrumentation — elcometer

Adhesion Testers

Cross Hatch Adhesion Tester
- Elcometer 107, 1540, 1542 Cross Hatch Cutters
- Instant assessment of the quality of the bond to the substrate - fast, low cost, visual comparison method
- Ideal for paint and powder coatings up to 250 microns - 1, 1.5, 2, 3mm spacing - 6 or 11 teeth
- Conforms to ISO, AS, ASTM, DIN, BS, EN, NFT

Pull Off Adhesion Tester
- Elcometer 106,506,508,510 Pull Off Adhesion Tester
- Easy to operate, uses re-usable dolly - 10-50mm
- Fully portable, measure on small, curved, flat surface
- Range: up to 100MPa, Accuracy: ±1% full scale
- Quick connect coupling - field or lab tests
- Conforms to ISO, AS/NZS, ASTM, BS, EN, NFT

Climatic Condition Testing

Climate Condition Monitor
- Elcometer 319 Dew Meter - Standard & Top models
- Air temperature, Relative Humidity (RH), Surface Temperature, Dewpoint Temperature, Data Logger
- DeltaT-difference between dewpoint & surface temp
- Bluetooth / USB output to free ElcoMaster Software

Hygro Thermometer
- 8706 Hygro Thermometer - Air Temperature, Relative Humidity (RH), Dewpoint Temperature, Wet Bulb
- M20 Low Cost Hygro Thermometer – RH & Temp
- Elcometer 116 Whirling / Sling Hygrometer
- Protimeter BLD7751 Hygromaster 2- download to PC

Infra Red Temperature
- Elcometer 214L, 8889 Infrared Temp Guns
- Non contact temperature gauges with laser pointer
- Range: -40 to 500°C for the most popular 8889
- Accuracy: ±2%, Resolution: 0.1°C, 10:1 D:S

Temperature
- Elcometer 113, 212, 213-2 Temperature Gauges
- Air, Surface, Liquid Temperature, Limpet Magnetic
- Range: -50 to 1370°C - various probe options
- Accuracy: ±1% or 1°C, Resolution: 0.1 to 1°C

Coating Thickness Gauges

Dry Film Thickness – Digital
- Elcometer 456 Coating Thickness & 311, 415, 355
- >70 rdgs/min, new scan mode >140 in Auto Repeat
- Separate, Miniature and wide range of Probes
- Accuracy: ±1 to 2%, Range: 0 - 31mm, Trend Graph
- USB / Bluetooth output: 150,000 rdgs, 2500 batches
- Upgradeable Firmware, 2 yr Warranty, IP64 rating
- Conforms to ISO, AS, ASTM, BS, DIN, SSPC, IMO

Dry Film Thickness – Coating on Concrete
- NEW Elcometer 500 Coating Thickness Gauge for ultrasonic non-destructive coating thickness measurement on Concrete & other similar substrates
- Accuracy: 2%; Range: 150mic to 10mm
- 60 rdgs/min, >140 in scan mode
- USB / Bluetooth output: 100,000 rdgs, 1,000 batches
- Signal strength indicator- accurate & reliable readings
- Rugged, ergonomic probes - field replaceable

Dry Film Thickness - Destructive
- Elcometer 121/4 Paint Inspection Gauge (PIG), 141
- Used for non metallic substrates eg wood, plaster, plastic and for determination of multilayer coatings.
- Conform to ISO, AS, ASTM, BS, DIN, ECCA, EN

Dry Film Thickness – Mechanical
- Elcometer 211 Magnetic DFTG - Banana Gauge
- Ideal for hazardous and dangerous environments
- Can be used under water Accuracy : ±5%, 0 to 1000u
- Conforms to ISO, AS, ASTM, BS, DIN, SSPC, NF

Drv Film Thickness – Standards
- Elcometer 995 Coated Thickness Standards to ISO
- Elcometer 990 Calibration Foils / Shims to ISO
- Accuracy: 1%, Range: 12mic to 20mm
- Used in the laboratory and on site
- Ideal method for accurately calibrating a DFTG unit

Dry Film Thickness - Software
- **Free** ElcoMaster for 456,224,319,130,MTG8,480,500
- User friendly, create professional reports in **seconds**
- For PC and Mobile use - customised reports for all applications - insert logos, images, GPS co-ordinates
- Save data to Cloud for access anywhere in the world

Powder Coating Thickness Gauge - Uncured
- Accurately predicts the cured coating thickness within ± 5% of the reading or ±5µm
- Easy to read, large colour display- Range 30-110µm
- Test coatings on metal, wood, MDF, plastic & more
- Also Elcometer 155 Uncured Powder Comb

Wet Film Thickness
- Elcometer 112, 115, 3236, 3238, 154 WFC's, 3230
- Quick, easy method of measuring coating thickness
- Plastic, Aluminium or Stainless Steel Combs, Wheels
- 2, 4 or 6 sided combs or high accuracy wheels
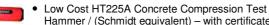- Conforms to ISO. Range: 25 to 3000 microns

Concrete Testing

Concrete Covermeters / Rebar Locators
- Elcometer 331 Basic, Standard, Top, Kolectric 8022
- Rebar detection, orientation, depth, diameter
- Also potential for corrosion with Half Cell
- Download readings to PC, Conforms to ISO
- Accuracy: ±1mm, Range: 0 to 180mm

Concrete Adhesion
- Elcometer 506, 510 (Automatic) &106/6 Adhesion Tester-to measure adhesion of Coatings on Concrete
- Special 50mm diameter dollies for rough surfaces
- 106/6:Hand operated, 506,510:Smooth Pull Rate
- Range: 106/6: 0 to 3.5 MPa; 506 & 510: 0.3 to 4 MPa

Concrete Hardness / Test Hammer
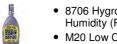- Low Cost HT225A Concrete Compression Test Hammer / (Schmidt equivalent) – with certificate
- Elcometer 181 Mechanical,182 Digital Test Hammer
- Quick & easy to use, 182 downloads readings to PC
- Non-destructive method of testing concrete insitu

Concrete Moisture
- Concrete Moisture Encounter (CME) specifically designed for flooring industry - no drilling required
- Range: 0 to over 6% Depth: 12.5mm non destructive
- DM4A Moisture Meter digital non-destructive meter
- Moisture Measurement System MMS for RH as well

(021) 683-2100   **www.bamr.co.za**   **sales@bamr.co.za**

Coating Physical Test Equipment

Abrasion, Washability & Brushability

- Elcometer 1720 Abrasion, Scrubbing, Washability
- To test paint, lacquers, inks, coatings & much more
- Wide range of tools available- flat & curved samples
- Elcometer Taber 5750 Linear Abraser and 5135 & 5155 Abrasers - regarded as the industry standard
- Conforms to ISO, AS, ASTM, DIN, EN, GME, PSA

Drying Time & Permeability

- Elcometer 5100 Payne Permeability Cups
- Used to determine the permeability of films of paint, varnish, plastic, cellophane, etc

Film Application & Test Charts

- Elcometer 4340 Motorised Automatic Film Applicator
- Elcometer 3520 Baker Film Applicators, 4360 & 4361 Spiral Bar Coaters / Draw Down Bars
- Cube Film Applicator, Multiple Gap, with reservoirs
- Wide range - thicknesses & widths, Vacuum Tables
- Leneta / Opacity Test Charts – full range available

Balances / Density

- Elcometer 8720 KB Balance
- Low cost easy to use. Range 0 - 10100g
- Elcometer 1800 Densimeter / Picnometer / Specific Gravity Cup - 50cc or 100cc, Optional Certificate
- Stainless steel precision instrument for determining the specific weight of paints and similar products

Elasticity & Resistance Deformation

- Elcometer 1510, 1500, 1506 Mandrel Bend Testers
- Elcometer 1620 Cupping Test
- Elcometer 1615 Variable Impact Testers
- Used for testing elasticity, adhesion, elongation & cracking of paint on sheet metal & impact resistance
- Conforms to ISO,AS,ASTM,BS,DIN,ECCA,JIS,NFT

Fineness of Grind Gauges

- Elcometer 2020 Hegman North Grind Gauge
- Elcometer 2050 High Precision Grindometer
- Elcometer 2070 NPIRI Fineness of Grind Gauges
- Used to determine particle size and fineness of grind of many materials, including: paints, pigments, inks, coatings, chocolates or other similar products
- Conforms to ISO, AS, ASTM, DIN, EN, FTMS, NF

Distance & Levels

Laser Distance Meters

- Leica Disto Laser Distance: D1, D110, D2, X310, D410, D510, D810 & S910 - Accuracy: ±1mm
- Range: 0 to 40, 60, 100, 120, 150, 200 & 300m
- Pythagoras function - heights, Tilt sensor for angles
- D1, D110, D510, D810, S910- Bluetooth connection
- Shortcut keys for addition, subtraction, area, volume
- Digital Pointfinder (4X zoom), large 2.4" colour display

Levels

- Digital Inclinometer 360° Angle Gauge Module measures Angles in Degrees or Slopes in %
- Various rail lengths: 250, 600, 1000mm. Also Module
- Accuracy to 0.1 for all Angles
- LCD display operates through 0 to 360°

Gloss & Appearance

Glossmeters

- Elcometer 480 Gloss Meters are small, robust & ergonomic, easy to use, highly accuracy, repeatable & reproducible - 3 - 10 readings per second
- Multiple angles; 20°, 60°, 85° - 40,000 reading memory in up to 2,500 batches, USB & Bluetooth®
- Auto calibration tile recognition via RFID
- Rhopoint Novo Gloss Meters- 60°, 20/60°, 20/60/85°

Shade / Reflectometer

- Rhopoint Novo-Shade Duo+ Reflectometer/Opacity
- Measures shade and opacity with 45/0° geometry
- Automatic calibration mode. 2 year warranty
- Continuous-read feature for large surfaces
- Includes Novo-Soft™ for download to computer
- Conforms to ISO, ASTM, DIN & FTMS

Haze / Distinctness of Image (DOI) / Goniophotometer

- Rhopoint Novo-Gloss IQ Image Quality, Haze, Distinctness of Image (DOI), Goniophotometer
- The instrument profiles complete specular reflectance and calculates gloss, peak specular reflectance, Distinctness of Image (DOI) and Reflection Haze
- The Novo-Scan IQ can achieve similar results to the Wavescan at a fraction of the price

Colour

- Elcometer 6210 RAL Colour reference charts - Colour collection of RAL CLASSIC Colours
- Elcometer 6300 Colour Cabinet - view samples to maintain colour consistency and quality
- Conforms to ISO, AS, ASTM, BS, SAE, TAPPI, NF

Hardness

Hardness of Metals

- TH5100 Integrated Portable Hardness Testers
- Automatic identification of impact test direction
- Very compact size, high accuracy, wide measuring range and simplicity of operation with digital readout
- Affri Metaltest for thin materials - from 0.08 mm

Concrete Hardness / Test Hammer

- Low Cost HT225A Concrete Compression Test Hammer / (Schmidt equivalent) – with certificate
- Elcometer 181 Mechanical,182 Digital Test Hammer
- Quick & easy to use, 182 downloads readings to PC
- Non-destructive method of testing concrete insitu

Hardness of Non Metals

- Elcometer 3101 Barcol Impressor Portable Hardness Tester – aluminium, copper, brass, plastic, fibre-glass
- Affri Shore A & D, TH200, TH210 Shore Durometers / Hardness Testers for soft & hard rubber & plastic
- Digital or Analogue models to suite your application

Hardness - Coatings

- Elcometer 3080, 501 Pencil Hardness Tester
- Elcometer 3086 Motorised Pencil Hardness tester
- Elcometer 3092 Sclerometer, 3000 Clemen Unit
- Elcometer 3045 Persoz / Konig Pendulum Hardness
- All for testing Hardness & Scratch resistance
- Conforms to ISO, AS, ASTM, DIN, EN, GME, PSA

Inspectors Accessories

Coatings Defects Manuals / Publications

- Elcometer Fitz Atlas of Coating Defects - reference manual with over 180 colour photographs to help the site inspector identify coating failures
- Elcometer Macaws Pipeline Defects Manual illustrates range of effects in high pressure steel pipelines and pipeline coatings

Magnifiers & Microscopes

- 139 Illuminated Pocket Microscope - 30x / 60-100x
- Elcometer 131 Telescopic Inspection Mirrors-150cm
- Elcometer 137 10x Illuminated Magnifier-scaled lens
- Elcometer 7210 30x Microscope – ideal for defects
- Elcometer 900 50x Concrete Crack Microscope
- Various magnification and ranges

Inspectors Accessories - Other

- Elcometer 147 Weld Gauge - angle of preparation, high - low, fillet weld throat & length
- Elcometer 144 Paint Safe Marker Pens

Inspectors Accessories - Other

- Elcometer 132 Torch / Flashlight - Intrinsically safe
- Elcometer 143 Crack Width Ruler - simple low cost
- Pocket Real Estate Master calculator

Laboratory Instruments

Minimum Film Forming Temperature Bar (MFFTB)

- Measures the minimum film forming temperature of water based materials.
- Also called Temperature Gradient Bar
- Used in industries such as foods, cosmetics, confectionery, wrapping papers, adhesives
- Complies with ISO 2115 and ASTM 2354

Oven Temperature Logger

- Elcometer 215 Oven Temperature Data Recorder including Software - 260k readings, Thermal Barrier
- Easy to use, measure & record the oven temp profile
- Large display for easy menu-driven operation
- Displays result of every stored batch, incl Cure-index
- Accuracy: 1°C, Resol: 0.1°C, Range: -200 to 1300°C

Measuring Instruments

Anemometer

- 8910, Elcometer G410 Anemometer / Air Flow / Velocity / Air Speed Meter
- Accuracy: 2%, 0.6°C. Resolution: 0.01ms, 0.1°C
- Range: 0.4 to 35 ms, -10 to 50°C
- 8910 - Wind Speed, RH, Dew Point, Windchill, Altitude, Heat Index, Barometric Pressure

Vibration

- TV7120 and TV7126 Portable Pen Type Vibration Tester - ideal for quick test of bearings and gears
- TV7231 Portable Vibration Tester with full graphic LCD & Spectrum Analysis, 3 display modes, RS232 to PC

Metal Detection / Locators

Rebar Locators and Covermeters

- Elcometer 331 Concrete Covermeter – Basic, Standard & Top, Kolectric 8022 CoverMeter
- Allows identification of location, orientation, depth and diameter of rebar & the potential for corrosion
- Conforms to ISO, AS, ASTM, BS, DIN, TR, UNI

Wall Tie and Stud Locators

- MT6 Metal Locator / Detector finds non-ferrous & ferrous metal.
- Depth: 152mm & indication of depth
- MultiScanner Pro SL Stud Locator

Industrial Metal Detectors

- Elcometer P500 Imp Box locator. Depth: 1 metre
- Simple to use and very rugged
- Detects Manholes, Valve Boxes, Stakes, Nails

Pipe and Cable Locator

- Subsite 250 Receiver & Transmitter Pipe & Cable Locator & Cable Avoidance Tool – up to 4.5m deep
- Sondes / Beacons for Non Metallic Pipes, & Clamps

Inspection Kits

Digital Inspection Kits

- Elcometer Digital Basic and Top Kits – 4 models
- Portable, and conveniently stored in a hard, plastic case- Top models download readings to ElcoMaster
- Elcometer 319 Climate Gauges with logging
- Elcometer 224 Surface Profile Gauges
- Elcometer 456 Coating Thickness Gauges
- Separate models enable you to carry out multiple tests at a time

Protective Coating Inspection Kits

- Elcometer Protective Coating Inspection Kits - 6 Kits
- Comprehensive kit incorporating all key gauges and inspection accessories conveniently stored in a hard, plastic case.
- Measurement options include: Material Thickness, Surface Inspection, Weld Inspection, Surface Cleanliness, Surface Profile, Climatic Conditions, Coating Thickness, Adhesion & Pinhole Detection.

Elcometer Blasting Inspection Kit

- The Elcometer Blasting Inspection Kit is a surface preparation inspection kit providing a range of inspection equipment to test surface profile and surface contamination of blasted profiles.
- Other Kits include: Elcometer Protective Inspection Kit for Hazardous Areas, Surface Contamination, Coatings on Concrete Inspection Kit

Elcometer Qualicoat Powder Coating Inspection Kit

- The Qualicoat Organisation brings together the ideals of several national coating associations into one quality label for the powder coating applied to aluminium architectural applications
- Also a Powder Coating Inspection Kit
- Other Kits include: Automotive Inspection, Elcometer Duct Deposit Measuring System

Moisture

Building Materials
- Surveymaster Moisture Meter is a Digital dual mode unit - Search (20mm deep) & Measure (Pin) options
- Moisture Encounter Plus (MEP) Moisture Meter
- Range: from 5 to 30% actual Moisture % 0 to 100% Relative Scale, Depth: 20 & 30mm

Wood
- Timbermaster Moisture Meter is a simple to use digital pin type moisture meter with Heavy Duty probe
- It has 8 in-built calibration scales for ease of use
- Range: 6% to 90% Resolution: 0.1% Depth:10/30mm
- DM4A, MEP, Mini 2000, Digital Mini Moisture Meter

General Purpose
- Popular Low Cost Mini 2000 Pin Moisture Meter
- Speedy Ashworth Calcium Carbide Moisture Meter
- Moisture Measurement System (MMS) Dampness Diagnosis Kit - Measure, Search, Hygrometer, Infrared Mode, USB output and Logging function

Concrete
- Concrete Moisture Encounter (CME) specifically designed for flooring industry - no drilling required
- Range: 0 to over 6% Depth: 12.5mm non destructive
- DM4A Moisture Meter digital non-destructive meter
- Moisture Measurement System MMS for RH as well

Paper / Cardboard
- DM4A Moisture Meter - digital non destructive universal moisture meter for measuring moisture in paper, cardboards, also wood, building materials
- Range: 0-50% (adjust.) Resol: 0.1%. Depth: 30mm
- Also RS232 Output to PC

Agriculture
- Digital Balemaster Meter with 600mm probe for Bales
- Very popular in the tobacco industry as well
- Grainmaster "i" Moisture Meter- Accurate- repeatable
- Pre-programmed 15 crop calibrations, 1year warranty

Non Destructive Testing NDT

Ultrasonic Flaw Detection Gauges
- FD700DL - small, powerful, fast, accurate hand-held flaw detectors - ideal for weld inspection & forgings
- Sizing Toolkits: DAC, AWS, TCG, DGS, A / B Scans
- Screen Refresh Rate: Adjustable 60 & 120 Hz
- Large data storage with multiple formats: Alpha numeric grid and sequential w/auto identifier

Corrosion / Precision Thickness Gauges
- CG70, CG100 Corrosion Thickness with A & B scans
- Range: 500mm, High speed scan mode: 32 / second
- PTG6, PTG8, PG70ABDL- 0.01or 0.001mm resolution
- Range: 0.15 to 25.4mm, ideal for thin materials
- A, B scans, Data Logging, Scan Mode, Adjustable gain, Limit Alarm, Gates, Differential mode

Pinhole / Porosity Detection

Sponge / Pinholes
- Elcometer 270 Sponge / Pinhole Detector - 9 & 90V
- High quality, low voltage detector - coating <500µm
- Accessories: sponge sizes, roller wands, telescopic
- Inspection Kit with all accessories available
- Conforms to ISO, BS, EN, ASTM, NACE, RP

Spark / Holiday
- Elcometer 266 & 280 High Voltage Holiday Detector
- 3 ranges: 0 to 5, 15 or 30kV, extra safety features
- Accessories for various applications – rolling springs for external pipeline inspection, extension handle
- 280 – ideal for pipelines – no signal return cable req.

Surface Preparation

Surface Profiles – Blasted
- Elcometer 224 Digital Basic, Top - Bluetooth / USB link to ElcoMaster – measure on convex surfaces
- Elcometer 123 Analogue Surface Profile Gauge
- Elcometer 122 Testex Tape & 124 Dial Gauge
- Elcometer 125 Comparators, 119 Pipe Pit Gauge

Surface Cleanliness – Soluble Salt Profiler
- Elcometer 130SSP Soluble Salt Profile Salt Meter
- Generates full colour salt density maps in 2D or 3D
- Gives you a Bresle equivalent reading – link to PC
- Elcometer 130 Salt Contamination Meter
- Soluble Salt Meter SSM - easy use, no consumables

Surface Profiles – Machined / Roughness
- TR3110/3200 Portable Digital Machined Roughness
- Accurate, portable, hand held, pocket sized
- Elcometer Rubert and Rugotest Comparators
- Elcometer 7062 Marsurf Surface Roughness Tester with various pickup extensions and software

Surface Cleanliness
- Elcometer 138 Bresle Kit & Elco 135 Bresle Patches
- Elcometer 134 CSN- Chlorides, Sulphates & Nitrates
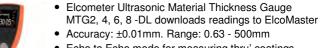- Elcometer 128 Pictorial Surface Stds, Amine Blush
- Elcometer 142 Dust Tape Test Kit to ISO 8502-3

Ultrasonic Material Wall Thickness

Low Cost popular models
- TT2110, TT300, SA40 Ultrasonic Wall Thickness
- Popular hand held digital instruments to measure material thickness of materials from one side only
- Accuracy: ±1%. Range: 0.8 to 225mm
- Resolution: 0.01mm, Download to PC with TT300
- High Temp and various frequency probes available

Elcometer Range
- Elcometer Ultrasonic Material Thickness Gauge MTG2, 4, 6, 8 -DL downloads readings to ElcoMaster
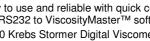- Accuracy: ±0.01mm. Range: 0.63 - 500mm
- Echo to Echo mode for measuring thru' coatings
- Easy to use menu driven - wide range of transducers
- Elcometer 204,304,307 Ultrasonic Thickness Gauges

Viscosity and Consistency

Viscosity - Flow and Dip Cups
- Elcometer Viscosity Cups: Quick, easy, low cost method, measure consistency of paints, varnishes
- Ford 4 most popular, ISO, ASTM, FORD, AFNOR, NFT, DIN, NF, EN, NBN, BS all available
- Frikmar, Zahn, Shell, Lory, Daniel Flow cups
- Viscosity Oils for calibration available

Rotational Viscometers
- Elcometer 2300 range of Rotational Viscosity Tester
- For low to high velocity - Select speeds, Temp. probe
- Accurate, easy to use and reliable with quick connect spindles, also RS232 to ViscosityMaster™ software
- Elcometer 2250 Krebs Stormer Digital Viscometer