

# SKIPPER<sup>plus</sup>

moisture meter for boats



The Tramex Skipper Plus is a non-destructive moisture meter which will safely detect excess moisture in GRP decks and hulls, most sandwich structures and fittings. A pocket-sized instrument, the Skipper Plus is self contained, easy to use and needs no user calibration.

## OSMOSIS IN GRP

Gelcoat Blistering, better known as 'Osmosis' is usually found on or below the waterline of GRP boats, but may also affect decks and superstructures.

Osmosis occurs when moisture finds its way into GRP composites and is absorbed and retained by high molecular weight alcohols (glycols). Osmotic pressure results in ugly blistering of the gelcoat layer affecting structural integrity and significantly reducing the boat's value.



Product order code : SMP

## FEATURES

- Three ranges for detecting moisture in GRP and hardwood.
- Wide measurement range of 5% to 30% H<sub>2</sub>O on timber scales and 0 to 100 on comparative scale for GRP and other materials.
- Identifies the presence of osmosis in GRP hulls.
- Confirms if wooden boats are dry enough for painting or varnishing.
- Traces leaks in decks and bulkheads.
- Identifies wet cores in sandwich structures.
- "Hold" function for ease of recording readings.
- Soft rubber electrodes allow direct measurement without scratching.
- Audible warning of high moisture. Audio sounder may be switched on and off.
- Battery operated (PP3 battery included).

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## PRODUCT DESIGN

The Skipper Plus uses non-destructive impedance measurement to determine the moisture content of GRP composites, timber and other electrically non-conductive materials.

Soft coplanar electrodes on the base of the instrument transmit low frequency signals deep into the material being tested. Digital mapping provides a linear readout of moisture content on an analogue display.

## THE SKIPPER PLUS MOISTURE METER IS USED TO:

- Identify osmosis problems before blisters appear.
- Identify wet cores in sandwich structures.
- Monitor hulls for drying before repairs and osmosis treatments.
- Check timber for excess moisture before painting, sheathing or varnishing.

Osmosis treatment involves removal of the hygroscopic solutes responsible for absorbing moisture and forming osmotic cells. The Tramex Skipper Plus is the ideal instrument for finding moisture associated with these solutes, and helping ensure successful treatment.

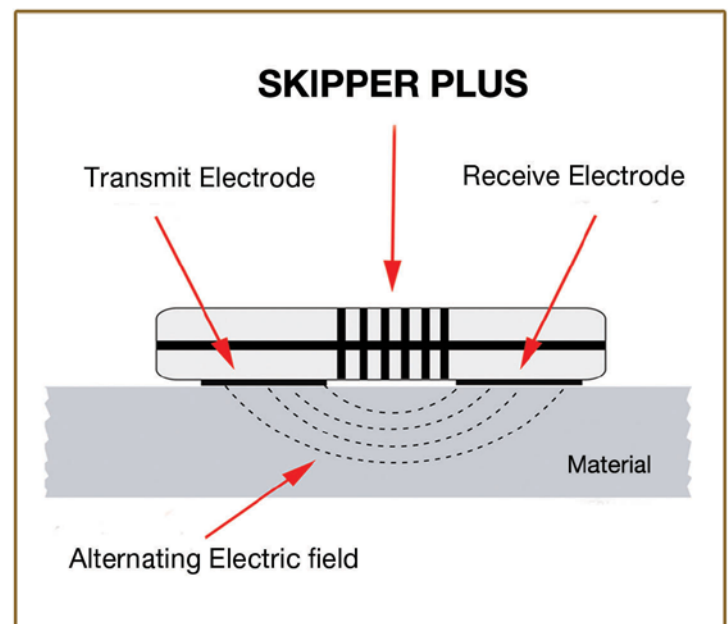
## SPECIFICATIONS

Size:	150mm x 85mm x 38mm (6" x 3.5" x 1.5")
Weight:	220g (7.7oz)
Construction:	ABS Body
Power:	9 volt PP3 Battery (included)
Display:	Analogue
Depth of penetration:	up to 30mm (1¼")

## MEASURING RANGE

Wood Moisture Content:	5 to 30 % H <sub>2</sub> O
Reference scale	0 to 100
(Not suitable for use on Carbon Fibre composites.)	

## HOW IT WORKS



## MOISTURE IN WOOD

Excess moisture in wood causes blistering and detachment of paints and varnishes, whilst trapped moisture encourages fungal growth and ugly black fungal staining. The Skipper Plus is easily drawn across surfaces to quickly survey for moisture over large areas. The Skipper Plus reads through paints, varnishes and sheathing such as Cascover without causing damage and will detect moisture to a depth of 30mm (1.25") or more. The Skipper Plus may also be used to find and trace leaks above and below decks.

