

# elcometer® 3230 Wet Film Wheel

Conforms to : ISO 2808-7A, BS3900-C5-7A, ASTM D1212-91-A, NF T30-125



Stainless steel device, to measure the thickness of wet films

It is important that a coating is applied to the correct thickness. Applying too much wet coating will not only waste time and money, but there is also a possibility of the coating cracking during the curing process. Too little coating and there is a chance that the substrate will not be sufficiently covered.

To control the process variables, it is often desirable to measure whilst the film is still wet. Wet film measurements are also useful for systems where the dry film thickness can only be measured destructively.

The Elcometer 3230 Wet film Wheels, formally known as the Elcometer 120 consists of three circles. The central circle is of smaller diameter and is eccentric of the two outer circles. By rolling the gauge through a wet coating, the centre disc eventually touches the film. This point on the scale indicates the thickness.

If the volume to solids ratio of the coating is known, then the wet film thickness can be used to predict the dry film thickness.

Various measurement ranges are available from 0 to 25µm to 0 to 3000µm are available

- Continuous Scale results in  $\pm 5\%$  measurement accuracy
- Suitable for flat and curved surfaces
- Stainless steel giving a hard-wearing instrument which can be cleaned with solvents for reuse

See also the Elcometer 3230 Coil Coating Wet Film Wheels

## Technical Specifications

Model	Scale Range	Graduations	Part Number	Model	Scale Range	Graduations	Part Number
Wet Film Wheel				Wet Film Wheel			
Elcometer 3230/1	0 - 25µm	1.25µm	K0003230M001	Elcometer 3230/7	0 - 300µm	15.0µm	K0003230M007
Elcometer 3230/16	0 - 40µm	2.0 µm	K0003230M016	Elcometer 3230/8	0 - 400µm	20.0µm	K0003230M008
Elcometer 3230/2	0 - 50µm	2.5µm	K0003230M002	Elcometer 3230/9	0 - 500µm	25.0µm	K0003230M009
Elcometer 3230/3	0 - 100µm	5.0µm	K0003230M003	Elcometer 3230/10	0 - 1000µm	50.0µm	K0003230M010
Elcometer 3230/4	0 - 150µm	7.5µm	K0003230M004	Elcometer 3230/15	0 - 1500µm	75.0 µm	K0003230M015
Elcometer 3230/5	0 - 200µm	10.0µm	K0003230M005	Elcometer 3230/11	0 - 2000µm	100µm	K0003230M011
Elcometer 3230/6	0 - 250µm	12.5µm	K0003230M006	Elcometer 3230/12	0 - 3000µm	150µm	K0003230M012
<b>Accessories</b>	50cm Wet film wheel handle						KT003230N002
	100cm Wet film wheel handle						KT003230N001

## Test Method

ISO 2808-7B, BS 3900-C5 method 7B, ASTM D4414-A specify that the wet film wheel should be perpendicular to the substrate and the thickness of the coating should be stated as that indicated on the central wheel - ensuring that the wheel has been rolled from maximum thickness to minimum thickness - thus avoiding surface tension.

Hold the wheel by its central spindle. Begin at maximum thickness to reduce risk of inaccuracy caused by surface tension.

Roll the wheel through the wet film with the side 1 in the diagram touching the substrate. Roll for at least one whole turn and slowly enough for wetting to occur. Roll the wheel backwards by at least one complete turn. The wet film thickness is read from the scale, at the end of the wetted segment of the middle circle, 2 in the diagram

To use wheel on pipes, measure across the longitudinal axis (lengthways) of the pipe. On rough surfaces, measurements will be made from the surface peaks and represent the minimum wet film thickness

