

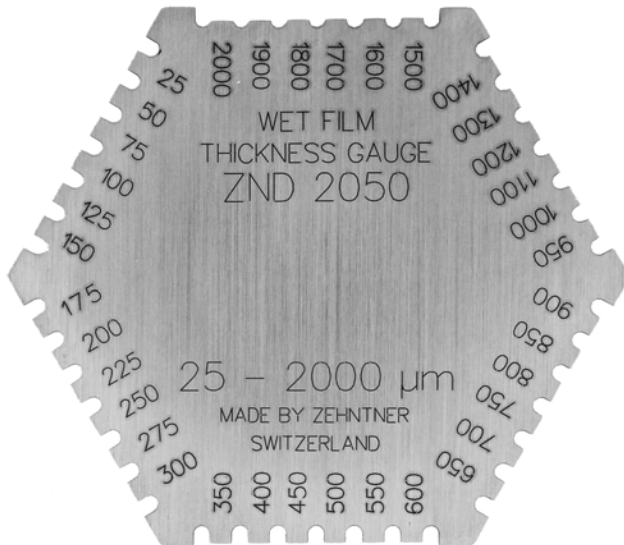
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Instruction manual

version 1.7 from 15.05.2006

ZND 2050-2054 Wet film thickness gauges



1. Safety precautions and warnings

1.1 Dangers



Attention!

This note is included in this instruction manual wherever it is warned about dangers which will arise to life and limb of persons if the apparatus is handled improperly. Observe these notes and be particularly careful in these cases. Also inform other users on all safety notes. Besides the notes in these instruction manual the generally applicable safety instructions and regulations for prevention of accidents have to be taken into account.



Caution

This note comprises instructions to be observed in order to comply with guidelines, instructions, notes and the proper procedure of the work, and to avoid damaging or destruction of the apparatus.

1.2 Notes regarding safety at work



The ZND 2050-2054 are exclusively designed for the determination of the thickness of all types of liquid coatings. Any other application is not in accordance with the regulations. The manufacturer is not liable for damage resulting from inappropriate application. The user bears the full responsibility.



Avoid any mode of operation, that could affect the safe working with the ZND 2050-2054. Especially the determination of the thickness of all types of liquid coatings must take place as described in this operating manual.



Unauthorised modifications and changes of the ZND 2050-2054 are not allowed. These will invalidate the guarantee. The manufacturer is not liable for damages resulting from unauthorised modifications; the user bears the full responsibility.

2. Delivery of apparatus

2.1. Transportation damages

After unpacking the instrument, please look for any transport damage in case of which we kindly ask you to inform the insurance company and **ZEHNTNER GmbH TESTING INSTRUMENTS** respectively.

2.2. Extent of delivery

The following parts are included in the delivery:

- comb gauge
- 1 soft case

2.3. Options

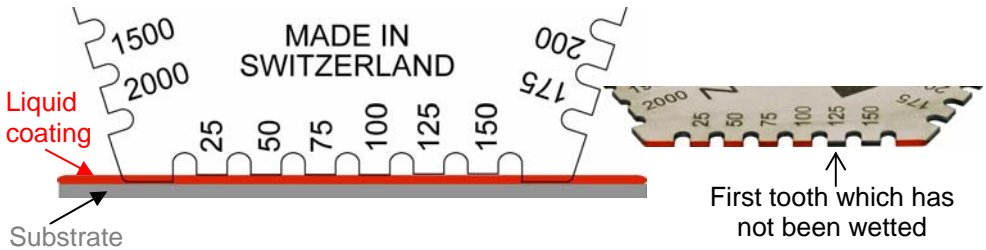
- ACC 061 one-sided inscription
- ACC 062 two-sided inscription
- ZKZ 001 calibration and certification (incl. certificate)

3. Features

- The comb gauge is a polygon with a series of teeth on each side. The two outer teeth of each side form a baseline. The inner teeth in between are progressively shorter so that a range of gaps between the teeth and the baseline results. For each tooth the distance to the baseline is indicated.
- The comb gauge is easy to clean.

4. Handling

- Place the comb gauge firmly onto the substrate with the liquid coating (directly after the application, in an angle of 90°) so that the teeth are normal to the plane of the surface.
- Remove the comb gauge and examine which teeth have been wetted by the coating.
- The wet film thickness of the coating is between the last wetted tooth and first tooth which has not been wetted (see the figure).
- Clean the comb gauge with a solvent.



The figure shows that the tooth 100 µm has been wetted by the coating as the last tooth and that the tooth 125 µm has not been wetted. Thus, the wet film thickness of the coating is between 100 µm and 125 µm.

5. Technical specifications

Version	Test range
ZND 2050	25 µm to 2'000 µm (hexagonal)
ZND 2051	5 µm to 150 µm (hexagonal)
ZND 2052	100 µm to 950 µm (pentagonal), in steps of 25 µm
ZND 2053	2 mm to 100 mm (pentagonal)
ZND 2054	on request

Material: high-grade stainless steel
Standards: ISO 2808, EN ISO 2808, ASTM D 4414