

BUCHHOLZ HARDNESS INDENTATION TEST

SP1900

DATASHEET

PRODUCT DESCRIPTION

The TQC Buchholz Hardness Indentation Test provides a method for carrying out an indentation test on coatings complying with the ISO 2815-2003 standard. The TQC Buchholz Hardness Indentation Test consists of a calibrated slip-on weight with a sharp-edged metal wheel, an illuminated microscope, a level gauge, a digital dual timer, and two markers with template.

The calibrated slip-on weight with sharp-edged metal wheel is positioned on the test specimen for a set period of time. The length of the indentation mark in the coating is an indication of the hardness of the surface.

The Buchholz Hardness Indentation Test is a mandatory test in Qualicoat, QIB and GSB accredited laboratories.

**BUSINESS**

Automotive, Coating Industry, Galvanize, Laboratory, Paint

STANDARDS

ISO NF 2815-2003, BS 3900 E9, ECCA T12 – 1985, NF T 30-052

FEATURES

- Buchholz indenter is equipped with functional grips allowing gentle placing and lifting of the instrument
- Pins and cutting part of indenter are made of hardened steel preventing wear
- High quality microscope with precision glass optical lenses and strong illuminator allows a clear visibility of the, often hard to see, indentation mark
- Dual timer can be pre-set for both "in-position" time and "recovering" time
- Separate level gauge allows checking the correct level of the test panel before the test is performed

SCOPE OF SUPPLY

- Buchholz Indentation Test
- Calibrated slip-on weight with a special cutter
- Illuminated microscope with 20x magnification
- Level gauge
- Digital dual timer
- Two markers with template
- 3 x AAA batteries
- Calibration certificate included

ORDERING INFORMATION

SP1900 - TQC Buchholz Indentation Test

ACCESSORIES

SP1935 - Template
SP1930 - Black marker
SP1931 - White marker
LD6170 - Surface Microscope 20X
DI0085 - Digital Dual Clock Timer

USE

The test shall be carried out at a temperature of $23\pm 2^{\circ}\text{C}$ and a relative humidity of $50\pm 5\%$.

1. Measure the coating thickness minimal 3-45 μm (according to the Buchholz Table)
2. The coating to be tested shall be smooth and clean.
3. Use the level gauge to ensure the test panel is at level on the testing surface.
4. Use the template to mark the spot to be measured and the feet positions on the test object. The indentation will be visible at the gap in the middle.
5. Check the indentation body (weight, wheel and fixing points) and make sure they are free from dust.
6. Gentle and without tilting or lateral movements place the indentation body on the test panel, feet first exactly on the marked positions, then lower the indenter carefully until it touches the panel. and start T1 on the timer
7. After 30 seconds remove the TQC Buchholz Indentation Tester from the surface and start T2 on the timer. While removing be careful for applying any pressure to the indenter.
8. After the recovery period of 35 seconds measure the length of the indentation (L) with the measuring microscope.
9. Look up the indentation length (L) in the Buchholz table and find the corresponding Buchholz Indentation resistance (BH) value, or use the formula $BH = 100/L$

**SPECIAL CARE**

- Though robust in design, this instrument is precision-machined. Never drop it or knock it over
- Always clean the instrument after use.
- Clean the instrument using a soft dry cloth. Never clean the instrument by any mechanical means such as a wire brush or abrasive paper. This may cause, just like the use of aggressive cleaning agents, permanent damage.
- Always keep the instrument in its case when not in use.
- We recommend annual calibration

SAFETY PRECAUTIONS

- A knife is a sharp object. Be careful when using it.

DISCLAIMER

The right of technical modifications is reserved.

The information given in this sheet is not intended to be exhaustive and any person using the product for any purpose other than that specifically recommended in this sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. Whilst we endeavour to ensure that all advice we give about the product (whether in this sheet or otherwise) is correct we have no control over either the quality or condition of the product or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability whatsoever or howsoever arising for the performance of the product or for any loss or damage (other than death or personal injury resulting from our negligence) arising out of the use of the product. The information contained in this sheet is liable to modification from time to time in the light of experience and our policy of continuous product development.