

IGT Quartant Abrasion Tester



Rub resistance largely determines the suitability of printed matter, folding cartons, brochures, newspaper wrappers for further processing, and mailing or other purposes. It is influenced by certain properties of inks, paper, paperboard, plastic foils, spray powders, and dampening liquids. Therefore, tests of rub resistance are vital to printers, processors, manufacturers of ink and substrates and, last but not least, final users.

The Quartant Abrasion tester is a handy, reasonable priced and sturdy instrument for objective and reproducible test results under conditions, which simulate normal stresses on printed products, and is very simple to operate.

Testing principles

During the rub test, the printed material reciprocally rubs on an unprinted test piece and, in addition, is slightly rotated. Similar to normal processing conditions, the abrasion is caused mainly by the reciprocating motion, and the rotary motion provides an overall stress on the test piece. The kinematics applied during the test prevents ring formations, thus facilitating evaluation of results (see pictures). Operating pressure and speed have deliberately been kept low to prevent excessive abrasion and frictional heat, which do not appear under normal processing conditions.

Operation

Mount the print and unprinted test pieces on a support and insert into the tester. This can be done with the flick of a wrist and renders the tester ready for continuous operation. Testing of flexible material such as paper and plastic foils as well as rigid paperboard is possible.

The number of abrasion strokes is preset on an automatic counter. Any standard program of 100 abrasion strokes, for instance, can be stored and repeated by pressing the repeat push button.

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Good reproducibility, quadruple performance

The rub tester is capable of testing four samples simultaneously. This feature is an obvious time saver and permits one to determine the reproducibility of a test sample. Furthermore, one can compare a test sample directly with prints whose rub resistance is known to be good or bad in actual practice.

Optimum sizes

The rub tester handles round and rectangular test pieces. For example, weighed prints produced on the Prüfbau-multipurpose proof press can be used directly without trimming. In this way, tests can be made at comparable ink film thickness.

Technical details

Abrasion pressure:	50 gr / cm ²
Number of strokes (double strokes):	1 – 9999
Total thickness of test pieces:	3 mm
Size of test piece:	45 - 50 x 100 - 250 mm
Size of contrasting test piece:	45 mm Ø
Electrics:	220 V / 50 Hz, 110 V / 60 Hz
Weight:	25 kg

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