

Equipment needed for crockmeter tests

For crockmeter tests Zehntner offers the model ZAA 2600.C - Zehntner-Automatic Crockmeter. Test samples with a maximum thickness of 72 mm (2.83") can be tested with ZAA 2600.C. Also the model ZAA 2600.SW can be used for crocking tests, however at a reduced thickness of 15 mm (0.59"). For testing thicker samples, ZAA 2600.SW can be equipped with the optional ACC1285 modification set "Crockmeter". Also other models of ZAA 2600 (e.g. Zehntner-Automatic Film Applicator, article No.: 2600.A) are suitable for carrying out such tests when equipped with the optional accessory ACC1285 modification set „Crockmeter“.

In order to carry out crockmeter tests, at least one friction finger set and one weight are required. Some standards and test procedures also specify additional equipment and accessories.

Please find below a list of equipment and accessories for carrying out crock testing in accordance with most common standards:

AATCC Test method 8-2007 - for testing colourfastness to crocking of textiles:



- ACC1344 friction finger set B with diameter 16 mm (0.63")
- ACC1346 weight for test force 9 N
- ACC1353 cotton rubbing cloth
- AATCC Gray Scale or AATCC Chromatic Transference Scale as well as white AATCC Textile Blotting Paper can be ordered at www.aatcc.org.

ASTM D6279 – test method for rub abrasion mar resistance of high gloss coatings:



- ACC1344 friction finger set B with diameter 16 mm (0.63")
- ACC1346 weight for test force 9 N
- Friction pad made of felt or paper, such as e.g.: ACC1352 felt cloth

Based on ASTM F1319 – test method for determination of abrasion and smudge resistance of images produced from business copy products:



- ACC1344 friction finger set B with diameter 16 mm (0.63")
- ACC1482 weight 50 g
- ACC1484 weight 100 g
- ACC1353 cotton rubbing cloth
- Densitometer in accordance with ANSI IT2.17
- Emery paper

BMW AA-0134 – dry scratch resistance test using Crockmeter:



- ACC1345 friction finger set C
- ACC1346 weight for test force 9 N
- Glossmeter
- Friction material according to agreement

To test clear paint, sandpaper by 3M type „281Q Wetordry™ Production™ Polishing Paper“ is used in qualities 9 micrometers.

DIN EN 13523-11 – for testing resistance to solvents (rubbing test) of coil coated metals:



- ACC1344 friction finger set B with diameter 16 mm (0.63")
- ACC1346 weight for test force 9 N
- ACC1353 cotton rubbing cloth (other materials like textiles or felt washers are allowed, though lead to other results)
- Solvent

DIN 55654 in general – for testing coating materials and coatings

- Friction finger set **A**, **B** or **C** with corresponding weight (see below)
- Abrasive material such as e.g. article ACC1353 cotton rubbing cloth. Furthermore, the additional use of a felt cloth or another cloth can be agreed.
- It is possible to use an abrasive medium
- Soft, lint-free cloth, if necessary with solvent
- Glossmeter in accordance with DIN EN ISO 2813 (e.g. ZGM 1130 Glossmeter 20°, 60° and 85°) with measuring template. Alternatively a device for measuring the haze or the brightness can be used.

For testing automobile clear coating material in accordance with DIN 55654, you require additionally:

- ACC1352 felt cloth

DIN 55654 with **friction finger A** (for flat test samples):



The test load (wear) onto the coating is uniform over the whole cuboid in crocking direction.

- ACC1315 friction finger set A (22 mm x 22 mm (0.87" x 0.87"))
- ACC1347 weight for test force 22 N

DIN 55654 with **friction finger B** (for flat test samples):



The highest test load (wear) onto the coating is achieved in the middle of the cylinder.

- ACC1344 friction finger set B with diameter 16 mm (0.63")
- ACC1346 weight for test force 9 N

DIN 55654 with **friction finger C** (for curved test samples):



The test load (wear) onto the coating is uniform over the whole cylinder in crocking direction.

- ACC1345 friction finger set C
- ACC1346 weight for test force 9 N

EN ISO 105-X12 – testing monochromic textiles and large-scale prints:



- ACC1344 friction finger set B with diameter 16 mm (0.63")
- ACC1346 weight for test force 9 N
- ACC1353 cotton rubbing cloth

Furthermore you require emery paper as well as a grey scale for assessing staining in accordance with ISO 105-A03.

Volkswagen PV 3906 (application standard) - Testing of non-metallic planar fabrics:



- ACC1344 friction finger set B with diameter 16 mm (0.63")
- ACC1346 weight for test force 9 N
- ACC1353 cotton rubbing cloth
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Furthermore you require a grey scale for assessing staining in accordance with ISO 105-A03.

Volkswagen TL 226 (application standard), paragraph 3.12.3 and 3.13.3 – paint coating on materials used in the vehicle interior trim:



- ACC1344 friction finger set B with diameter 16 mm (0.63")
- ACC1346 weight for test force 9 N
- ACC1353 cotton rubbing cloth

Furthermore you require a grey scale for assessing staining in accordance with ISO 105-A03.