cross–cut Tester

Instruction Description

1. cross-cut with 6 cutting edges
2. cross-cut with 1 cutting edge
3. Cleaning brush
4. Magnifier
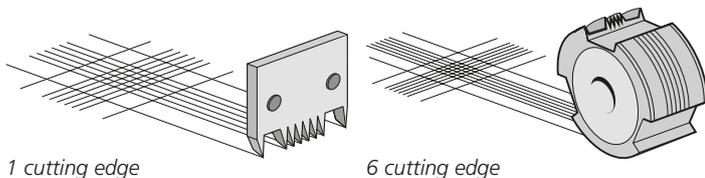
The BYK-Gardner cross-cut tester consists of multi-cut tools with 1 cutting edge in its simple version or 6 cutting edges in its round version for longer lifetime.
The flexible cutter head facilitates the ease-of-handling and guarantees reproducible cross cuts.

Maintenance:

The cut knifes are manufactured from tool steel of defined hardness. Since this material is not stainless, high humidity can cause rust formation. For rust prevention we recommend to rub the blades with a lightly oil-soaked cloth.

## International Standards

DIN EN ISO 2409
ASTM D 3002
ASTM D 3359

1 cutting edge   *6 cutting edge*

BYK
Additives & Instruments

How to perform the Cross-Cut Test?

- Select the appropriate cross-cut tool based on the coating film thickness (see table)

Film Thickness	Cutter Spacing
0 – 60 μm	1 mm
60 – 120 μm	2 mm
> 120 μm	3 mm
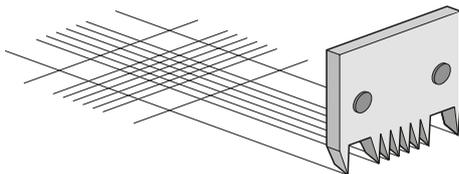
- Make a lattice pattern in the film with appropriate tool, cutting to the substrate

- Brush in diagonal direction 5 times each, using a brush pen or tape and remove with tape

- Examine the grid area using an illuminated magnifier

How to analyze the Cross-Cut Test?
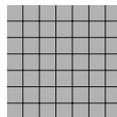
ISO Class: 0 / ASTM Class: 5B
- Edges of cut are completely smooth
- None of the squares of the lattice is detached
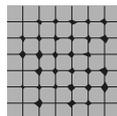
IIISO Class: 1 / ASTM Class: 4B
- Detachment of small flakes at the intersection of the cuts
- Max. 5 % of the cross cut area is affected
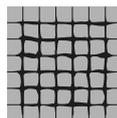
ISO Class: 2 / ASTM Class: 3B
- Flaked along the edges and /or intersection of the cuts
- Affected cross-cut area: 5% - 15%
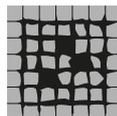
ISO Class: 3 / ASTM Class: 2B
- Squares are partly / wholly damaged
- Affected cross-cut area: 15% - 35%
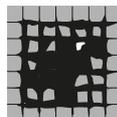
ISO Class: 4 / ASTM Class: 1B
- Squares partly / wholly detached
- Affected cross-cut area: 35% - 65 %

ISO Class: 5 / ASTM Class: 0B
- Any flaking worse than ISO 4 or ASTM 1B
- Affected cross-cut area > 65%