



CC2000 Adhesion Test Kit acc. ISO2409, ASTM D3359 SP1690, SP1691, SP1692, SP1699, SP1700

User Manual

General:

TQC CC2000 is a testkit for testing the adhesion of coatings to a preceding coat or substrate. The testkit contains a grey/blue handle with a hardened steel cutter (type may vary), a nylon brush, an illuminated magnifier and adhesive tape.



Measuring Method:

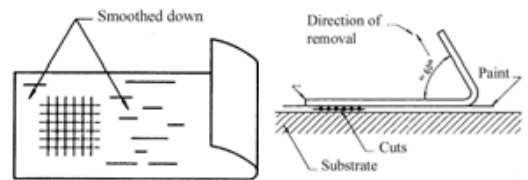
A right-angle lattice pattern is cut into the coating penetrating through to the substrate. The resistance of the coating to separation of the substrate is classified using the table.

Use:

- Choose the right cutter and place it by loosening the red fixing knob at the top of the handle
- Make sure the surface to be tested is rigid and firm
- Make two cuts/scratch, perpendicular to each other, drawing the handle with the appropriate cutter (depending on coating thickness and substrate) through the coating into the substrate thus making the lattice pattern.
- Brush the pattern lightly with the supplied brush several times back and forth along each of the diagonal lines of the lattice pattern.
- For hard substrates only the test can be extended by applying the adhesive tape parallel to one set of cuts over the lattice pattern and pull it off steadily in 0.5 to 1 sec. at a 60° angle within 5 minutes after applying.
- Carefully examine the cut area, if required using the magnifier and classify the test area according to the table



a) Position of tape with respect to grid b) Position of tape immediately prior to removal from grid



Classification	Description	Appearance of surface of cross-cut area from which flaking has occurred (Example for six parallel cuts)
0	The edges of the cuts are completely smooth; none of the squares of the lattice is detached.	
1	Detachment of small flakes of the coating at the intersections of the cuts. A cross-cut area not significantly greater than 5 % is affected.	
2	The coating has flaked along the edges and/or at the intersections of the cuts. A cross-cut area significantly greater than 5 %, but not significantly greater than 15 %, is affected.	
3	The coating has flaked along the edges of the cuts partly or wholly in large ribbons, and/or it has flaked partly or wholly on different parts of the squares. A cross-cut area significantly greater than 15 %, but not significantly greater than 35 %, is affected.	
4	The coating has flaked along the edges of the cuts in large ribbons and/or some squares have detached partly or wholly. A cross-cut area significantly greater than 35 %, but not significantly greater than 65 %, is affected.	
5	Any degree of flaking that cannot even be classified by classification 4.	



Hint:
Always makes sure the cutter is sharp and undamaged. The ISO-standard advises replacement of the cutter when the top of the cutting teeth has flattened with 0,1 mm.

Range:
ISO 2409 :2003: 1 mm. spacing for coatings up to 60 μm on hard substrates
2 mm. spacing for coatings up to 60 μm on soft substrates
2 mm. spacing for coatings from 61 to 120 μm on both hard and soft substrates
3 mm. spacing for coatings from 121 μm to 250 μm on both hard / soft substrates
ASTM D3359: 1 mm. spacing for coatings up to 50 μm
1,5 mm. spacing for coatings from 50 to 125 μm

Maintenance:
Treat your instrument as a delicate instrument with care, also for your own safety because the cutter is sharp.

- Clean with a soft and dry cloth. Do not use water or solvents.
- Avoid mechanical shocks or contact with sharp objects
- Always use high quality alkaline batteries. (Illuminated magnifier)

Disclaimer
The information given in this manual is not intended to be exhaustive and any person using the product for any purpose other than that specifically recommended in this manual 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 manual 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 manual is liable to modification from time to time in the light of experience and our policy of continuous product development.