



Paul N. Gardner Company



USER MANUAL

Information and instructions for GARDCO
distributed products.

CROSS CUT ADHESION TEST CC1000

VF1839, VF1840, VF1842, VF1844, VF1846, VF1847

MANUAL

1 SAFETY PRECAUTIONS

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

2 PRODUCT DESCRIPTION

TQC CC1000 is a test kit for testing the adhesion of coatings to a preceding coat or substrate.

The test kit contains a soft grip handle, a hardened steel cutter (type may vary), a nylon brush, an illuminated magnifier, adhesive tape and one 4 mm allen key.



3 STANDARDS

ISO 2409, ASTM D3359

4 WHAT'S IN THE BOX?

Soft grip handle
hardened steel cutter (type may vary)
nylon brush
illuminated magnifier
adhesive tape
4 mm Allen key

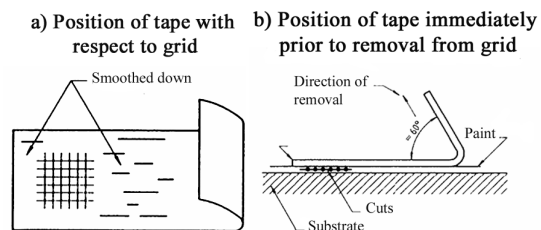
Art-Nr.	VF1839		VF1842		VF1844	VF1846		VF1847
Blades	6		6		6	11		11
Teeth distance	1mm / 0,039 inch		2mm / 0,079 inch		3mm / 0,12 inch	1mm / 0,039 inch		1,5mm / 0,059 inch
Acc. To	ISO 2409	ASTM D3359	ISO 2409	ASTM D3359	ISO2409	ASTM D3359 <2009	ASTM D3359 <2009	
Coating thickness on hard substrates	0-60µm / 0-2,4 mils	0-50µm / 0-2 mils	61-120µm / 2,4-4,8 mils	50-125µm / 2-4,9 mils	121-250µm / 4,8-9,8 mils	0-50µm / 0-2 mils	50-125µm / 2-4,9 mils	
Coating thickness on soft substrates	-		0-60µm / 0-2,4 mils					
Spare knives	VF2355		VF2357		VF2358	VF2359		VF1861

5 PREPARATIONS

- Make sure the surface to be tested is rigid and firm

6 PERFORM A MEASUREMENT

- 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 acc. to ISO. Acc. to ASTM within 90s (± 30 s) at a 180° angle.
- Carefully examine the cut area, if required using the magnifier and classify the test



Classification		Description	Appearance of surface of cross-cut area from which flaking has occurred (example for 6 parallel cuts)
ISO	ASTM		
0	5B	The edges of the cross-cut are completely smooth: none of the squares of the lattice is detached	
1	4B	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	3B	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	2B	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	1B	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	0B	Any degree of flaking that cannot even be classified by classification 4	

7 MAINTENANCE

- 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)

8 DISCLAIMER

The right of technical modifications is reserved.

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.