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TQC CROSS CUT ADHESION TEST - CC3000

SP1680, SP1681, SP1682, SP1683, SP1684

DATASHEET

PRODUCT DESCRIPTION

The TQC Cross Cut Adhesion Test KIT (CC3000) is used to test the adhesion of dry coats of paint on their substrate by means of a series of cuts through the coating. Two series of parallel cuts cross angled to each other to obtain a pattern of 25 or 100 similar squares. The ruled area is evaluated by using a table chart after a short treatment with a stiff brush, or adhesive tape for hard substrates.

BUSINESS

Protective coatings, Corrosion Control, Coating Laboratories, Paint Production, Surface Finishing, Powder Coatings, Decorative Coatings, Building Maintenance

STANDARDS

ISO 2409, ASTM D3359

FEATURES

- The blade holder is kept at a set distance from the surface with the aid of two wheels (ball bearings). Reproducible test results guaranteed.
- Ergonomically shaped handle
- Easy to change cutting knife
- Wide range of knife sizes available for different coating thicknesses and substrates and according to different standards.

SCOPE OF SUPPLY

- Soft grip handle
- Hardened steel cutter (type may vary, see below schedule)
- Nylon brush
- Illuminated magnifier
- Adhesive tape (adhesion to steel 4.3N/cm) and one 2 mm
- Allen key

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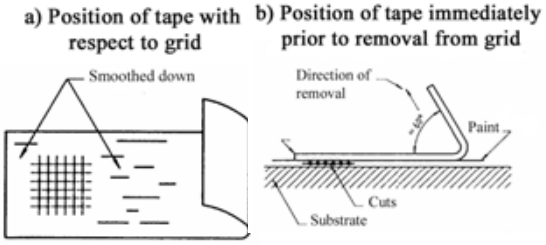
ORDERING INFORMATION

Art-Nr.	SP1680		SP1681		SP1682	SP1683	SP1684	SP1695
Blades	6		6		6	11	11	No knife, kit only
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 knifes	**SP1702**		**SP1703**		**SP1704**	**SP1705**	**SP1706**	

ACCESSORIES

SP3007 - Adhesion tape, single roll, adhesion to steel 4.3 N/cm
SP3010 - Adhesion tape, set of 3 rolls, adhesion to steel 4.3 N/cm
SP3020 - Adhesion tape, single roll, adhesion to steel 7.6 N/cm
SP1710 - Nylon Brush for Cross Cut Adhesion Test
SP9700 - Lighted Magnifier 2.5x
SP1702 - Spare knife ISO + ASTM 1mm
SP1703 - Spare knife ISO + ASTM 2mm
SP1704 - Spare knife ISO 3mm
SP1705 - Spare knife ASTM 1mm
SP1706 - Spare knife ASTM 1,5mm

USE



- 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 for ISO. For ASTM within 90s ±30s at a 180° angle.
- Carefully examine the cut area, if required using the magnifier and classify the test

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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 are 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	

SPECIAL CARE

- Though robust in design, this instrument is precision-machined. Never drop it or knock it over
- Always clean the instrument after use.
- Clean the instrument using a soft dry cloth. Never clean the instrument by any mechanical means such as a wire brush or abrasive paper. This may cause, just like the use of aggressive cleaning agents, permanent damage.
- Always keep the instrument in its case when not in use.

SAFETY PRECAUTIONS

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

DISCLAIMER

The right of technical modifications is reserved.

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

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