

Technical Data

GREBLON® Q-LINE CK2000

Base coat

Product series/Article No.:

03-2857-709409

Water-based ceramic 3-component textured non-stick coating, suitable for food contact

- a) Lacquer (component [A]) 03-2857-709409
- b) Hardener (component [B]) 19-2823-708995
- c) Catalyst (component [C]) 20-2824-708996
- d) Lacquer, hardener and catalyst matured (64:32:4)



TECHNICAL DATA

Colour	:	black																				
Supply viscosity	a):	16 ± 4 secs / DIN 53211 / 4 mm / 23° C																				
Solid Content	a):	approx. 59,3 % / DIN EN ISO 3251																				
	d):	approx. 55,3 % (theoretical value)																				
Volume solids	d):	approx. 35 % (theoretical value)																				
SG wet	a):	approx. 1.63 g/cm³ (theoretical value)																				
	d):	approx. 1.28 g/cm³ (theoretical value)																				
SG dry	d):	approx. 2.0 g/cm³ (theoretical value)																				
Rec. film thickness wet	d):	101 ± 14 microns to achieve 35 ± 5 microns																				
Film thickness dry	d):	The recommended <u>D</u> <u>r</u> <u>y</u> <u>F</u> <u>i</u> <u>l</u> <u>m</u> <u>T</u> <u>h</u> <u>i</u> <u>c</u> <u>k</u> <u>n</u> <u>e</u> <u>s</u> s for the base coat is 30 – 40 microns and 8 – 12 microns for the topcoat. In total an average DFT of 35 microns should be reached, however the minimum DFT should not fall below a value of 25 microns. Depending on the quality requirements the film thickness can be adjusted as follows:																				
<table><tr><td></td><td>DFT [µm] Base coat</td><td>DFT [µm] Top coat</td><td>Ø DFT [µm]</td><td>Minimum DFT [µm]</td></tr><tr><td>Application for to achieve a LGA “good” evaluation in abrasion resistance</td><td>30 – 40</td><td>8 – 12</td><td>45</td><td>40</td></tr><tr><td>Standard application</td><td>25 – 30</td><td>8 – 12</td><td>36</td><td>30</td></tr><tr><td>Minimum dry film thickness</td><td>20 – 25</td><td>8 – 10</td><td>> 28</td><td>28</td></tr></table>				DFT [µm] Base coat	DFT [µm] Top coat	Ø DFT [µm]	Minimum DFT [µm]	Application for to achieve a LGA “good” evaluation in abrasion resistance	30 – 40	8 – 12	45	40	Standard application	25 – 30	8 – 12	36	30	Minimum dry film thickness	20 – 25	8 – 10	> 28	28
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Please note, that the coating performance is influenced by DFT. Therefore, a trial application followed by an evaluation using an added performance test is recommended!																						
Theor. Coverage	d):	approx. 8 m²/kg at 35 microns DFT																				
Pot life after maturing	d):	approx. 24 hrs @ 20° C At standard conditions pot life is 24 hours, by means of storage at temperatures between 5 and 15° C pot life can be prolonged also temperatures above 20° C can reduce pot life.																				

The values indicated above do not represent a specification, but are typical values achieved.

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APPLICATION INSTRUCTIONS

Prior to application	a) Lacquer:	Thorough homogenization of component [A] by means of stirring for 10 min. at 18 to 40° C until the lacquer is homogeneous without settlement.
	b) Hardener:	Homogenize by shaking
	c) Catalyst:	Homogenize by shaking
	d) Mixing:	The catalyst 20-2824-708996 [C] is poured completely with the given mixing ratio into the vessel of hardener 19-2824-708995 [B], followed by shaking the mixture for a few seconds. Immediately after this mixture [B + C] is poured completely with the given mixing ratio by weight to the lacquer [A], whilst stirring. After this the mixture must be stirred or rolled according to table below.

MATURING

Ambient temperature during maturing	Maturing by stirring (2000 rpm) Dispersing plate	Maturing by rolling (150-180 rpm)	Pot life of mixed and matured coating when stored at 20° C ^{*)}
15 – 20° C	2 hrs	5 – 6 hrs	approx. 24 hours
20 – 30° C	1 hrs	4 – 5 hrs	
30 – 40° C	1 hrs	3 – 4 hrs	

^{*)} Lower temperatures will prolong pot life.

Higher temperatures will decrease the pot life; here a trial coating is recommended.

Subject value is based on our practical experience; it is not to be considered as a guarantee.

Substrate	:	Aluminium, cast aluminium, stainless steel; trial coating should be carried out!																
Filtration	:	250 microns (60 mesh), nylon or stainless steel																
Substrate pre-treatment	:	The substrate must be clean and free from grease, rust and other contaminations. Degreasing and sandblasting are basic requirements. Sandblasting with corundum (90-120 mesh) to obtain a surface roughness R _a of 3,5 ± 0,5 µm and R _{Pc} -value of > 80, ideally > 100.																
Pre-heating of substrate	:	Object temperature during application should be in a range from 40 – 50° C.																
Application method	:	Conventional air assisted spraying The recommended nozzle size for base coat is 1,2 / 1,3 and for top coat 0,8 – 1,0 mm.																
Mixing ratio in drums	:	<table><tr><td></td><td>Component [A]:</td><td>Component [B]:</td><td>Component [C]:</td></tr><tr><td>Mixing ratio</td><td>64</td><td>32</td><td>4</td></tr><tr><td>5 kg drum</td><td>3,20 kg</td><td>1,6 kg</td><td>0,20 kg</td></tr><tr><td>20 kg drum</td><td>11,2 kg</td><td>5,6 kg</td><td>0,7 kg</td></tr></table>		Component [A]:	Component [B]:	Component [C]:	Mixing ratio	64	32	4	5 kg drum	3,20 kg	1,6 kg	0,20 kg	20 kg drum	11,2 kg	5,6 kg	0,7 kg
	Component [A]:	Component [B]:	Component [C]:															
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5 kg drum	3,20 kg	1,6 kg	0,20 kg															
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Thinner	:	Dilution is basically not necessary, as the product is „ready-to-use“ after the maturing.																

Paint supply to automatic spray guns	:	Hoses from supplying vessel to spray gun should be as short as possible without loops, hanging bows and long horizontal parts.
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Application Zone	
Recommendations	: Ambient temperature and humidity: 20 to 35° C, under 70 % relative humidity (RH).
Rec. coating system	: As base coat in combination with a top coat as a two-layer-system, the top coat has to be applied wet-on-wet on the base coat.
Flash-off	: Prior to the curing process the coating needs a flash off at least 10 min./100° C circulated air temperatures.
Curing Schedule	: Full mechanical and chemical resistances is only achieved after completion of curing cycle, i.e. curing for at least 10 minutes at 220° C object temperature.
Shelf life	: Dependant on ambient temperature under optimal cooled storage conditions at 10° - 30° C in sealed original packaging 6 months as maximum. Protect from heat, frost and direct solar radiation.
Waste management	: Residues and sludge's of lacquers must not be introduced into the sewers. Sewage must be disposed of according to the regulations.
Cleaning	: Cleaning with alcohols like Ethanol or Isopropanol or a mixture of water and alcohol in a 3:1 mixing ratio.
Hazard classes / Industrial hygiene	: Information on hazard classes and industrial hygiene is given in our relevant safety data sheets.

2024-01-16 S.Kr.

The above indications were determined under lab conditions and in practice as being reference values. They correspond to today's developments in technique. Application equipment and application technique are beyond our influence. This information is given to the best of our knowledge, however, no liability or obligation whatsoever is assumed in connection with it.