

Technical Information
and
Application-instructions
for
B r a n t h o - K o r r u x
"2 – K o m p o"

Brief description:

Two-component – Metal-Protection– Primer and top coat

universal suitable for iron, steel, stainless steel, aluminium, zinc (galvanised), and other non-ferric metals; coating surface is free of pores, hard and has a semi-gloss appearance.

Excellent adhesion also on difficult surfaces (e.g. non-ferric metals), good resistance against chemicals and solvents, fast drying and curing, high heat resistance, and excellent corrosion resistance, good weather resistant, easy recoating without any problem.

Application by roller, brush or spray, is either possible.

Manufactured by:

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Technical Data:

- * **Product description:** silk-matt coating material based on acrylic resins
- * **Viscosity:** Base: thixotrope,
Activator N: 40-50 Sek. (DIN 4 mm);
mixed: > 100 sec. (DIN 4 mm)
- * **Thinning:**
recommended: Branth's **Kombi-Thinner**,
Branth's Spezial-Thinner, customary in the market Acrylic-Thinner
not recommended:
Alkyd thinner, white spirit, nitro-cellulose combination thinner, water
- * **Density** (depends on colour): Base: ca. 1,4,
Activator: ca. 1,07,
mixed: ca. 1,36
- * **Solids content:** Base: 73 %,
Activator: ca. 75 %,
mixed: 73,2 %
- * **VOC-value:** Base: 390 g/ltr.,
Activator: 250 g/ltr.,
mixed: 380 g/ltr.,
incl. 5 % Kombi-Thinner: 415 g/ltr.
- * **Coating thickness:** depending on application method
e.g. 60-80µm (dry film thickness)
- * **Coverage:** - theoretical: 7 m²/kg at 60 µm dry
- practical: 4-5 m²/kg for each coating
- * **Colours:** white 9010, reseda green 6011, others
- * **Packaging sizes:**
5,4 kg base + 0,6 kg activator N
- * **Mixing ratio:**
Base : Activator N = 9 : 1 by weight
- * **Induction time:** none
- * **Potlife:** ca. 4 hours at 20° C (depending on temperature)
- * **Curing time:** 1-3 days chem. resistant
- * **Application temperature:** +12°C to +30°C (recomm.)
- * **Health & Safety:** Extensive information is available from the safety data sheets.

General applicaion information

- * The surface has to be clean, dry, stable, and free form release agents.
- * Mixing ratio must be kept exactly.
(One can base to one can activator. Smaller amounts should be weighed.)
- * During application, the temperatures must be above dew-point (no condensation water) or above the freezing-point (drying temperature at least over 5°C).
- * Two full layers result a coating thickness definitely over 100µ. (We recommend to apply two different colours).
- * Good ventilated surfaces can be recoated by spray-application after 2 hours, by brush after 4 hours. Recoating, mending or similiar works can follow without abrading and without noticing in between intervals.
- * This product enables short drying times, but only completely dried coatings offer a permanent protection. (litmus test!)
- * Apply to general health and safety instruction, e.g. keep away from open fire, heat and sparks; do not eat, drink or smoke during application, use only well ventilated areas (see safety information sheet)
- * **Always: Stir well before use! Check colour!**
- * Do not mix with other substances than indicated by manufacturer.
Do not dilute for brush and roller application.

The expected lifetime in the corrosion categories of DIN-EN-ISO 12944-5 are achieved by Brantho-Korrux "2-Kompo" as follows:

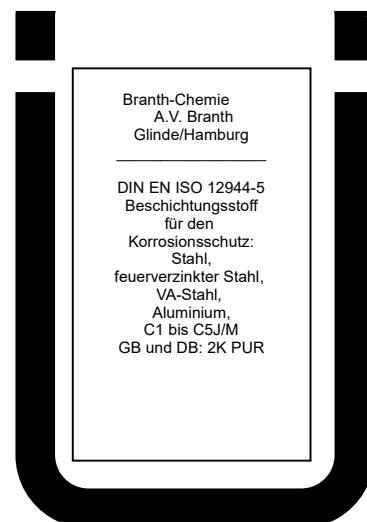
corrosion category	C1	C2	C3	C4	C5J C5M
life time					
K (up to 5 years)	60 µ	60 µ	80 µ	80 µ	160 µ
M (5-15 years)	60 µ	80 µ	120 µ	160 µ	240 µ
L (over 15 years)	80 µ	140 µ	160 µ	220 µ	320 µ
Surface: plain steel, d.f.t. each coating 60-80 µ.					

Galvanisation + Coating = Duplex-System

Galvanisation protects the steel, Brantho-Korrux "2-Kompo" protects the galvanisation. A protected galvanisation does not sacrifice itself for the steel (as an unprotected glavanisation would); if the coating is mechanically injured, the galvanised surface prevents the steel not to corrode. Following film thicknesses are recommended:

corrosion category	C1	C2	C3	C4	C5J C5M
life time					
K (up to 5 years)	60 µ	60 µ	60 µ	60 µ	120 µ
M (5-15 years)	60 µ	60 µ	80 µ	80 µ	160 µ
L (over 15 years)	60 µ	60 µ	80 µ	160 µ	240 µ
Surface: galvanised steel, d.f.t. each coating 60-80 µ.					

- C1-examples: Inside: heated buildings,stores,schools,hotels
- C2-examples: Inside: unheated buildings
Outside: atmosphere with low level of pollution
- C3-examples: Inside: factories, laundries
Outside: city and industrial atmosphere
- C4-examples: Inside: industrial constructions, swimming pools
Outside: industrial and coast atmosphere
- C5J-examples: Inside: buildings with constant condensation
Outside: high humidity, aggressive atmosphere
- C5M-examples: Inside: buildings with constant condensation
Outside: coast and offshore atmosphere



Detailed application instructions

Iron and steel

- Remove rust and rust scale, loose mill scale, oil, grease and all other impurities by appropriate means.
Apply coating on a clean and dry substrate.
- Depending on expected exposure apply one or more coats by brush or roller (do not dilute). For spray application dilute according the list printed on page 4.
- The service life increases at thicker total dry film thickness. In practice one up to 3 coats are recommended, depending on exposure.
- On vertical objects a wet film thickness of 40 up to 150 µm without sagging can be easily applied (depends on application method).

Rusted steel

- Remove loose rust (rust scale), a sound substrate is required for optimum and lasting result (minimum degree of surface preparation up to St 2. Contamination (oil, grease, salts, and detergents) shall be removed by washing properly.

Aluminium (light and colour metals)

- Slightly abrade, adhesion primer is not required, but always degrease and clean the substrate properly.
- **Never** abrade with steel fibre, preferable use a plastic fibre embedded abrasive (e.g. Scotch Brite® or similar).
- Apply normal thickness (not too thin!).

Weathered galvanised steel

- Properly clean and degrease total substrate, carefully remove all loose matter, especially white zinc-salts. Rinse with plenty of fresh water.
- Apply sufficient film thickness on already rusting and consequently rough substrates.

New galvanised steel

- Slightly abrade, adhesion promoter or primer is not required, but always degrease and clean the substrate using a water-based cleaner / degreaser. Rinse with plenty of fresh water.
- Carefully remove zinc salts (white rust). **Never** abrade with steel fibre, preferably use a plastic fibre embedded abrasive (e.g. Scotch Brite® or similar).
- Only apply on a well-prepared, clean and dry substrate, free of grease, oil and all other contaminants. Apply sufficient film thickness (min. 60 µm) in order to obtain proper adhesion and long-term protection.

Other substrates

- There are many more possibilities e.g. to obtain an abrasion resistant floor.

Storage

- **Minimum tenability**
The tenability indication on the cans implies the warranted tenability in unopened, original cans, in a cool, dry storage. The indicated tenability is **no expiry date**, under normal conditions the coating may be used up to 2 years without loss of quality. The indicated minimum tenability should especially help to use the older cans first. As long as the coating material can be stirred homogenously, it can be applied without problems.
- **ATTENTION:** The activator is hygroscopic and should definitely be stored dry and kept closed.

Colours

- Black, white and reseda green are in storage and therefore immediately available. Other colours are available from 30kg orders according to our colour card (RAL). Slight colour differences can be mixed by the user itself with Brantho-Korrux "3 in 1" (Addition: max. 5-10 %).

Directive 2000/53/EG (End-of life vehicles)

Directive 2002/95/EG (Electrical and electronic equipment)

Brantho-Korrux "2-Kompo" complies with the requirements.

Directive 2004/42/EG (ChemVOCFarbV)

complies: 2004/42/IIA(j)500(2010)500 and IIB(c)540(2010)540 et al.

Brush application

- Apply material with standard round or flat brushes (industrial quality); dry film thickness from 40 to 70 µm can be achieved.

Roller application

- A short nap synthetic roller is recommended (synth. mohair, suitable for 2-component coatings); a d.f.t. of 40-50 µm (each layer) can be achieved. Do not use foam rollers.

Spray

- Please follow directions of equipment manufactures. The use of Branth's Kombi-Thinner is recommended. When spraying a dry film thickness from 50 µm (small objects, air atomised) up to 150 µm (large objects, airless) can easily be achieved.

Orange-peel effect

- Brantho-Korrux "2-Kompo" can also be produced for an orange-peel effect surface, **if ordered extra**. Apply undiluted material shortly after a previous coat, the effect depends on opening, pressure, and distance. This orange-peel effect is excellent for difficult surfaces and has a very good hiding power.

Electrostatic spray

- **Brantho-Korrux "2-Kompo"** can be applied with electrostatic spray equipment (airless, air mixed, and air atomised), the material has an electrical conductivity of >100 K-Ohm. Dilute according equipment manufacturer's specification. Other special adjustments are available ex works (min. 30kgs).

Fillers

- Brantho-Korrux "2-Kompo" can be applied to all known 1-Comp. and 2-Comp. fillers when completely dried.
- 1-Comp. fillers (after a few hours) or 2-Comp. fillers (from the next day or earlier) can be applied to Brantho-Korrux "2-Kompo". Abrading is easily possible after both layers are completely cured.

Recoating

- Brantho-Korrux "2-Kompo" dries to a silky lustre or semi-gloss, insensitive surface. Normally a two-coat system is sufficient, an extra top coat is not necessary. If required, recoating is universal possible.

Temperatures

- During application a temperature of object- and surroundings around 20° C is optimal. Temperatures should be between +12° C and +30° C. At higher temperatures the drying time increases definitely.. The potlife shortens accordingly.
- The cured coating shows good heat resistance. Practical experience has shown that exposure to dry heat up to max. 200° C has no influence on the quality of the product. Depending on colour, discolouration should be expected from ca. 140° C.
- Recommended storage temperatures should be between 10° and 20° C. Usually frost doesn't damage. Temperatures higher than 25° C shorten the storage stability.

Instructions for: Drying times, resistances, primer, and top coats

Resistances:

Medium		short exposure e.g. squirts	longer-term exposures
WATER	Tap water / rain water Brine (5%) / sea water condense water up to 80°C Waste water (ph 4-10) Solutions ca. ph 4-10 Solutions ca. ph 3-4 und 10-12 Solutions ca. ph 2-3 und 12-14	very good very good very good very good very good very good satisfying	very good very good very good good very good Recomm. 1 Recomm. 1
OILS etc.	Gearing oil, hydraulic oil up to 80°C Grease oil, grease fat up to 80°C Brake fluid, anti-freezing agent Diesel oil, fuel oil, transformmer oil up to 80°C Bio diesel oil, bio chain oil Mineral oil-testing mixture A20/NP II Petrol E10	very good very good very good very good very good very good very good	very good very good good very good Recomm. 1 very good insufficient
CHEMICALS	Household detergents (various) 1,5 % acetic acid 10 % ethyl alcohol Nitro thinner, silicon remover Alkyd colour thinner Battery acid Thawing salt (solid/fuid)	very good very good very good very good very good very good very good	very good very good very good insufficient very good insufficient good
OTHERS	Meteorological condit. in the arctic Meteorological condit. in Europe Meteorological condit. in the tropics Dove excrements (droppings) Wood brew	very good very good very good very good very good	very good very good good very good very good
TEMPERATURES	dry, without discolouration dry, depending on colour wet/humid without discolouration	150° C 200° C 150° C	140° C 180° C 120° C
Recommendation 1: We recommend for these exposures to seal Brantho-Korrux "2-Kompo" with "Branth's 2-Kompo-Anti-Graffic"-coating.			

Drying times	20° C	15° C	25° C	60° - 80° C
touch dry	20 min.	30 min.	15 min.	10-15 min.
dry to handle	50 min.	90 min.	30 min.	15-20 min.
fully dry	16 hours	32 hours	12 hours	1 hour
fully cured	16 hours	32 hours	12 hours	1 hour
recoating with itself	"wet in wet" any time possible without abrading			

PRIMER under Brantho-Korrux "2-Kompo"	recoating intervals at 20° C / 65 % relative humidity	
	spraying after	brushing after
Brantho-Korrux "2 Kompo"	after 2 hours	after 4 hours
Brantho-Korrux "nitrofest"	after 1 day	after 1-2 days
Brantho-Korrux "3 in 1"	after 1-2 days	after 2-3 days
Brantho-Korrux "ecobase"	after 6 hours	after 10-12 hours
Other 1-K-primer	not recommended	not recommended
Other 2-K-primer	after 4-16 hours	after 4-16 hours

TOP COATS auf Brantho-Korrux "2-Kompo"	recoating intervals at 20° C / 65 % relative humidity	
	spraying after	brushing after
Brantho-Korrux "2 Kompo"	ab 2 Std.	ab 4 Std.
Branth's 2K-Anti-Graffic-Lack	ab 2 Std.	ab 4 Std.
Branth's 2K-(M-)Schutzlack		
Other 2-K-Lacke	ab 4-16 Std.	ab 8-16 Std.
Other 1-K-Lacke	ab 2-4 Std.	ab 6-8 Std.