

TECHNICAL DATASHEET

Created on: 03.06.2015.



Verified on: 03.06.2015.

Page 1 of 3

Product name: Two-component clear topcoat varnish, matte – APP 2K HS Acryl Klarlack Matt 2:1 APP product reference: 020180-1,0L

Two-component clear acrylic topcoat varnish with a matte finish, quality class: **HIGH SOLID**. Weather-resistant in every type of climate. The light-fastness of the base varnish is guaranteed thanks to the addition of UV filters.

Packaging size: Topcoat varnish - 1,0 L.

Product and related products: APP 2K HS Acryl Klarlack Matt 2:1
APP 2K HS Classic Harter XLHN/XLHS
APP HS Spezial S Harter XLHN/XLHS
APP 2K Acryl Verdünnung AVN/AVS.

Special additions: APP 2K Elastic, APP Anti-Silikon

APP 2K HS Acryl Klarlack Classic
APP 2K HS Acryl Klarlack Spezial S
APP Modular 2K Acryl Line 50-95 – matting additive

Main ingredients: APP 2K HS Acryl Klarlack Matt 2:1 - Acrylharz,
APP 2K HS Classic Harter XLHN/XLHS, APP HS Spezial S Harter
XLHN/XLHS - Härter auf Isocyanatbasis,
APP 2K Acryl Verdünnung AVN/AVS – varnish thinner.

Colour: Transparent, colourless (clear), lacklustre.

Gloss level is affected by:

- the thickness of the fully hardened varnish layer
- the number of layers
- the amount of varnish thinner added
- the temperature level and the exposure time during the drying phase
- the type of surface to which the varnish is applied (waterborne basecoats or organic-based basecoats, old topcoat varnishes)

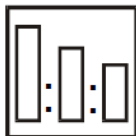
Use: The product is dedicated for patch repairs as well as for repairs on complete car parts as a clear topcoat with a lacklustre (matt) finish in multilayer restoration techniques. To be used with conventional and waterborne basecoats.

Basecoat:

- APP Modular Special Base
- old topcoat varnishes
- common conventional and waterborne basecoats for renovation works on vehicle bodies.

Application

Mixing ratio: A) Mixing ratio – by volume:



- 2 parts APP 2K HS Acryl Klarlack Matt
- 1 part APP 2K HS Classic Harter XLHN/XLHS
APP HS Spezial S Harter XLHN/XLHS
- 0-5% APP 2K Acryl Verdünnung AVN/AVS

B) Mixing ratio – by weight:

- 100 APP 2K HS Acryl Klarlack Matt
- 50 APP 2K HS Classic Harter XLHN/XLHS
APP HS Spezial S Harter XLHN/XLHS
- 0-6 APP 2K Acryl Verdünnung AVN/AVS

C) Modifying the gloss level of APP 2K HS Acryl Klarlack Matt.

Gloss level	Gloss [%] (\wedge 60°)	APP 2K HS Acryl Klarlack Matt	APP Modular 2K Acryl Line 50-95	APP 2K HS Acryl Klarlack Classic	APP 2K HS Classic Harter XLHN/XLHS	APP 2K Acryl Verdünnung AVN/AVS
Semi-gloss	50-75	80	0	20	50	0-5
Satin	30-50	90	0	10	50	0-5
Semi-matte	20-30	95	0	5	50	0-5
Matte	10-20	100	0	0	50	0-5
Super-matte	< 10	95	5	0	50	0-5

The above information reflects the current level of knowledge in regard to our products and their applications. No guarantee is given in regard to any specific qualities or behaviour of the product under non-standard circumstances. Always follow the instructions and warnings given on product labels and in the material safety data sheets provided by the manufacturer. No liability can be assumed for work results if affected by factors beyond our control.

TECHNICAL DATASHEET

Created on: 03.06.2015.

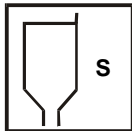


Verified on: 03.06.2015.

Page 2 of 3

Product name: Two-component clear topcoat varnish, matte – APP 2K HS Acryl Klarlack Matt 2:1 APP product reference: 020180-1,0L

Gloss level	Gloss [%] ($\wedge 60^\circ$)	APP 2K HS Acryl Klarlack Matt	APP Modular 2K Acryl Line 50-95	APP 2K HS Acryl Klarlack Spezial S	APP 2K HS Spezial S Harter XLHN/XLHS	APP 2K Acryl Verdünnung AVN/AVS
Semi-gloss	50-75	80	0	20	50	0
Satin	30-50	90	0	10	50	0
Semi-matte	20-30	95	0	5	50	0
Matte	10-20	100	0	0	50	0
Super-matte	< 10	95	5	0	50	0



Spraying viscosity at +20°C: 18-20 s 4 mm DIN.

Important:

The amount of varnish thinner added affects the gloss level.

Only use with hardeners for acrylic varnishes: APP 2K HS Classic Harter XLHN/XLHS or APP HS Spezial S Harter XLHN/XLHS.

Do not exceed the recommended hardener amount.

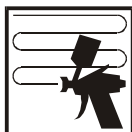
If necessary, add 2 to 5% of APP Anti-Silikon to the mix. If necessary (if using the product on plastic surfaces), add the relevant amount of APP 2K Elastic, the elasticizing additive for varnishes, before proceeding to add the hardener as outlined in the mixing chart.

Product	Type of synthetic material						
	PP EPDM	ABS PPO	PA PBTP	PUR hard	PUR soft	PC POM PVC	Laminate EP SMC UP-GFK
APP 2K HS Acryl Klarlack Matt 30% APP 2K-Elastic	*	*	*	*		*	*
APP 2K HS Acryl Klarlack Matt 50% APP 2K-Elastic					*		

Application:



Apply using a spray gun, nozzle diameter $\varnothing 1,2\text{-}\varnothing 1,3$ mm, air pressure 2 to 3 bar.



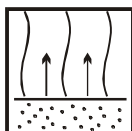
Layers: 2-3 x 1

Thickness after hardening/layer: 25-35 μm (2 x 1)

The number of layers and the total dry coat thickness affect the gloss level.

Recommended working conditions:

- Minimum temperature: +15°C
- Maximum relative air humidity: 70%.



Evaporation time to be allowed between layers at +20°C: 5 minutes

Pot life of ready-to-use mixture: 3 hours.

Drying phase

At +20°C:

Dust-dry after: 20 minutes.

Tack-free after: 3-4 hours

The above information reflects the current level of knowledge in regard to our products and their applications. No guarantee is given in regard to any specific qualities or behaviour of the product under non-standard circumstances. Always follow the instructions and warnings given on product labels and in the material safety data sheets provided by the manufacturer. No liability can be assumed for work results if affected by factors beyond our control.

TECHNICAL DATASHEET

Created on: 03.06.2015.



Verified on: 03.06.2015.

Page 3 of 3

Product name: Two-component clear topcoat varnish, matte – APP 2K HS Acryl Klarlack Matt 2:1 APP product reference: 020180-1,0L



Fully hardened: 6-7 hours

At +60°C: 30 minutes.

IR-heater: 12-15 minutes.

The temperature and the exposure time thereto during the drying phase affect the gloss level.

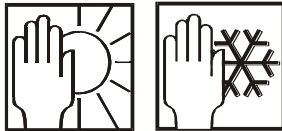


Tool cleaning:

Cellulose nitrate- or acrylic-based solvents.

Storage:

Store in closed original containers, in dry and well ventilated rooms. Storage temperature must not exceed +35°C. Protect from freezing.



Health and safety precautions:



For professional uses only.

See label or material safety data sheet.

Follow the local health and safety regulations at all times.

VOC:

Permissible VOC value in ready-to-use product in g/l:

840g/l for APP 2K HS Acryl Klarlack Matt

Maximum VOC value in ready-to-use product in g/l:

<514,2g/l for APP 2K HS Acryl Klarlack Matt

The above information reflects the current level of knowledge in regard to our products and their applications. No guarantee is given in regard to any specific qualities or behaviour of the product under non-standard circumstances. Always follow the instructions and warnings given on product labels and in the material safety data sheets provided by the manufacturer. No liability can be assumed for work results if affected by factors beyond our control.