Data Sheet

2K-Aqua Matt Enamel 2390

Water-based, two-component, highly resistant to mechanical and chemical stress, AgBB certified, for interior and exterior use, with 2K-Aqua Hardener 2380

Basecode Farbsystem Entspricht EN 71-3 Sicherheit von Spielzeug Speichel- und schweißecht

Field of application

For particularly resistant interior and exterior paint coats (transparent only for interior use). On, for example, primed structural components and constructions made of steel, primed zinc and zinc-coated steel structural components, as well as coatable plastics (BFS Leaflet No. 22). In interior areas, as well as on wooden-based materials, e.g., MDF boards or melamine resin boards, and as a transparent overcoat on wooden handrails as well as in combination with wall nonwoven also applicable to wall surfaces.

Properties

- Water-based
- Highly resistant to mechanical and chemical stresses
- Resistant to chemicals in accordance with test verification
- Disinfectant-resistant in accordance with test verification
- Excellent adhesion
- Very resistant to light and weather exposure
- Very low odor
- Rapid curing
- Meets EN 71-3 Safety of toys, resistant to saliva and perspiration
- Tested in accordance with the requirements of the AgBB scheme and in accordance with the test certificate for use with indirect contact with foodstuffs
- Decontaminable in accordance with DIN 25415 in conformity with test certificate No. 09-2018

Material description

Standard color shade
0095 white
0100 transparent (only for interior use)
Additional color shades from the Brillux Color System.

Degree of gloss
Matt

Base material
PUR Acrylic Enamel, two component

VOC
EU limit value for this product (Cat. A/j: 140 g/l (2010).
This product contains max. 100 g/l VOC.
The specified VOC value refers to the ready-to-use mixture of base paint and hardener.

Brillux ..more than paint

Material description

Flash point	Not applicable
Density	Approx. 1.05-1.3 g/cm³
Packaging	0095 white: 875 ml and 3.5 l 0100 875 ml colorless: 875 ml and 3.5 l Color System: (Base paint and hardener in separate containers)

2K-Aqua Hardener 2380

Special hardener for 2K-Aqua Matt Enamel 2390
2K-Aqua Silk Matt Enamel 2388 and 2K-Aqua Whiteboard 2384

Field of application

For mixing with 2K-Aqua Matt Enamel 2390, 2K-Aqua Silk Matt Enamel 2388. and 2K-Aqua Whiteboard 2384 in the appropriate mixing ratio.

Properties

Special hardener based on polyfunctional aliphatic isocyanate.

Material description

Color shade	Colorless
Base material	Aliphatic polyisocyanate
Flash point	> +61°C
Density	Approx. 1.09-1.13 g/cm³
Packaging	125 and 500 ml (Base paint and hardener in separate containers)

Use

Mixing ratio	7 parts 2K-Aqua Matt Enamel 2390 to 1 part by volume of 2K-Aqua Hardener 2380. This corresponds to about 100 g of base paint: 13 g hardener. Ensure thorough mixing of the two components. Do not tightly seal any container with mixture of base paint/hardener because such formulations will react to form carbon dioxide gas and thus pose a bursting hazard.
Mixing	Mix base paint and hardener in the specified mixing ratio shortly before application. Then pour into another clean container and stir again thoroughly. Avoid inclusion of air during mixing. Then allow the mixture to pre-react for about 10 minutes. Do not mix freshly mixed material with residual material. You must comply with the limited time for use (pot life).
Thinning	Apply undiluted.

Use

Tinting
All color shades can be mixed with one another.

Compatibility
Can only be mixed with materials of the same type and those specified in this Data Sheet.

Application
2K-Aqua Matt Enamel 2390 can be applied by brushing, rolling, and AirCoat spraying methods. In roller application, preferably uniformly applied with the Microfiber Paint Roller 1221 and rerolled with the Hydro Paint Rollers 1288. Paint brushes with synthetic bristles, such as the Uni-Plus Paint Brush. round 1204, are suitable for painting. During trimming work with a paint brush, carefully reroll the surfaces as part of the rolling process. With high material accumulations, e.g., with runners and “fat edges”, surface defects can occur in the form of outgassing. Avoid this at all costs. A thorough intermediate sanding between application steps is required when creating a "paint-on-paint" build-up. More information on spray applications is provided in the "Spray data" table.

Pot life (at +20°C)
Approx. 2 hours. Higher temperatures considerably reduce the pot life. After the pot life period has ended, do not dilute the material again or continue to use it.

Consumption
Approx. 110-130 ml/m² per layer.
Determine exact consumption by means of a test application on the object to be coated.

Application temperature
Best at +15°C. Do not apply below +8°C and above +25°C nor in direct sunlight, at high humidity (≥ 80%), during rainfall, fog, cases of trapped moisture, strong wind, or to very warm substrates.

Tool cleaning
Clean tools immediately after use with water and Universal Cleaner 1032. Clean spray devices especially thoroughly.

Spray data

Spray system	Nozzle	Spray angle	Supply air/air quantity	Material pressure/ material quantity	Thinning	Cross-spraying
AirCoat [1)]	0.009–0.011 inch	40°	3-4 bar (air)	120-150 bar	unthinned	1

The data is based on substrate and ambient temperatures of +20°C.
If work is interrupted for more than 45 minutes, an intermediate cleaning of the spray system with water and Universal Cleaner 1032 is required.
[1)] Information related to the use of AirCoat nozzles 9/40 or 11/40 (blue air cap).

Drying (+20°C, 65% relative humidity)

Dust dry after approx. 2 hours. Can be sanded and processed after approx. 8 hours. Hardened after approx. 7 days.
Allow for longer drying time if the temperature is lower and/or the humidity is higher.

Storage

Store in a cool, dry, and frost-free place, between +5°C and +35°C in a well-ventilated area. Reseal opened, unmixed containers tightly.

Declaration

Product code

PU50.
The information in the current Safety Data Sheet applies.

Coating build-up

Substrate preparation

The substrate must be solid, dry, clean, with good adhesiveness, load-bearing, and free from separating agents. Degrease and derust iron. Thoroughly remove mill scale and layers of welding scale. Prepare zinc, galvanized surfaces by cleaning them with Universal Cleaner 1032 or with ammonia alkaline washing fluid (in accordance with BFS Leaflet No. 5, Paragraph 3.3). Clean aluminum and bare metal with Universal Cleaner 1032 and non-woven abrasive, then rinse thoroughly with water. When treating aluminum, follow the instructions in BFS Leaflet No. 6. Prepare plastics in accordance with BFS Leaflet No. 22. Check existing coatings for their suitability, load-bearing capacity, and adhesive properties. For substrates on which there is a possibility of dissolving or peeling, for example oil and enamel paints, we recommend applying a test coat. Remove defective and unsuitable coatings thoroughly, and dispose of them in accordance with the applicable regulations. Thoroughly sand intact old coatings. Hazardous particles and vapors may be released when reworking or removing old paint coats, e.g. as a result of sanding, paint removal by heat gun, etc. Perform such work in well ventilated areas only and ensure the use of appropriate protective equipment (including respiratory protective equipment) as required. Pretreat the substrate in accordance with the requirements. See also VOB Part C, DIN 18363, Section 3.

Exterior coats on iron/steel, zinc, zinc-coated steel, aluminum, and plastic

Substrates	Prime coat	Intermediate coat [1)]	Top coat
Exterior iron/steel, untreated	2x 2C Epoxy Primer 855	If necessary, 2K-Aqua Matt Enamel 2390	2K-Aqua Matt Enamel 2390
Exterior iron/steel, factory-primed	Treat defects with 2C Epoxy Primer 855 and the entire surface with 2K-Aqua Epoxy Primer 2373 or 2C Epoxy Primer 855		
Zinc, zinc-coated components, exterior, untreated	2x 2K-Aqua Epoxy Primer 2373 or 2C Epoxy Primer 855		
Aluminum, exterior, bare metal, untreated	2K-Aqua Epoxy Primer 2373 or 2C Epoxy Primer 855		
Coatable plastic, exterior, untreated	2K-Aqua Matt Enamel 2390 or 2C Epoxy Primer 855		
Coil coating, powder coating	2C Epoxy Primer 855		
Intact, load-bearing, two-component coatings, exterior	2K-Aqua Epoxy Primer 2373 or 2C Epoxy Primer 855		

[1)] A thorough intermediate sanding with a nonwoven abrasive between application steps is required when creating a "paint-on-paint" build-up.

Coating build-up

Interior coats on iron/steel, zinc, zinc-coated steel, aluminum, and plastic

Substrates	Prime coat	**Intermediate coat** [2)]	Top coat
Iron/steel, interior, untreated [1)]	2x 2K-Aqua Epoxy Primer 2373, 2K-Aqua Epoxy Spray Primer 2375, or 2C Epoxy Primer 855	If necessary, 2K-Aqua Matt Enamel 2390	2K-Aqua Matt Enamel 2390
Iron/steel, interior, with factory-primed [1)]	Defects and entire surface with 2K-Aqua Epoxy Primer 2373, 2K-Aqua Epoxy Spray Primer 2375, or 2C Epoxy Primer 855		
Zinc, zinc-coated components, interior, untreated	2x 2K-Aqua Epoxy-Primer 2373, 2K-Aqua Epoxy Spray Primer 2375, or 2C Epoxy Primer 855		
Aluminum, interior, bare metal, untreated	2K-Aqua Epoxy-Primer 2373, 2K-Aqua Epoxy Spray Primer 2375, or 2C Epoxy Primer 855		
Coatable plastics, interior, untreated	2K-Aqua Matt Enamel 2390 or 2C Epoxy Primer 855		
Coil coating, powder coating	2C Epoxy Primer 855		
Intact, load-bearing, two-component coating, interior	2K-Aqua Epoxy-Primer 2373, 2K-Aqua Epoxy Spray Primer 2375, or 2C Epoxy Primer 855		
Factory Hydro dip prime coating, e.g. steel frames or factory powder prime coating, e.g. fire doors	Defects with 2K-Aqua Epoxy Primer 2373, 2K-Aqua Epoxy Spray Primer 2375, or 2C Epoxy Primer 855	2K-Aqua Matt Enamel 2390	

[1)] Only for application in areas meeting specifications for corrosion category C1 (irrelevant) in accordance with EN ISO 12944.

[2)] A thorough intermediate sanding with a non-woven abrasive between application steps is required when creating a "paint-on-paint" build-up.

Coating build-up

Interior coatings on wooden-based materials

Substrates	Prime coat	**Intermediate coat** [1)]	Top coat
Wood-composite boards, interior, e.g. MDF boards or melamine resin panels	Depending on the requirements and selection with 2K-Aqua Epoxy-Primer 2373, 2K-Aqua Epoxy Spray Primer 2375, or 2C Epoxy Primer 855	If necessary, 2K-Aqua Matt Enamel 2390	2K-Aqua Matt Enamel 2390
Wooden railings interior	-	2K-Aqua Matt Enamel 2390, colorless	2K-Aqua Matt Enamel 2390, colorless

[1)] A thorough intermediate sanding with a non-woven abrasive between application steps is required when creating a "paint-on-paint" build-up.

Interior coats on wall surfaces [1)]

Substrates [2)]	**Prime coat 3)**	**Intermediate coat** [4)]	Top coat
Glued Xtra Nonwoven 1725	2K-Aqua Epoxy Primer 2373, 3% diluted	2K-Aqua Matt Enamel 2390	2K-Aqua Matt Enamel 2390
Glued CreaGlas Nonwoven VG 4101 Magnetic	Two prime coats, with 2K-Aqua Epoxy Primer 2373, 3% diluted		

[1)] For large-surface application and to achieve the optimum surface results, we recommend preferably processing with spray application.
[2)] Read and follow the instructions in the Data Sheet for the gluing the wall nonwoven to be used.
[3)] Apply a thin layer of Latex Plastic ELF 904 as required to pore off prior to applying the prime coat and achieve a very smooth, even surface.
[4)] Before continuing with the coating build-up, perform a thorough intermediate sanding with RO/ETSC 125 Granat 1420 sanding pads, grain size P 220 and additionally rough up with the processing and cleaning pad 3694, green. Remove any dust from surfaces using a micro-fiber cloth.

Notes

Proper ventilation	Ensure proper ventilation during application and drying in interior areas.
Lightly sand surfaces	Sanding the surfaces is always required when creating a "paint-on-paint" build-up with 2K-Aqua Matt Enamel 2390.
Traces of substrate unevenness	Despite careful substrate preparation and filling to Q4 quality level, during application on the wall surfaces, the visibility of substrate unevenness cannot be prevented; this depends on the light incidence.
Do not use on horizontal surfaces exposed to moisture	Do not use on horizontal surfaces exposed to moisture.
Implementation in brilliant and intense color shades	Brilliant, pure intense color shades, e.g., in the yellow, orange, red, magenta and yellow green areas have a lower hiding power as a result of the pigments used. For critical color shades, we recommend applying a full-covering base coat in these areas in the corresponding base color shade (Basecode). In addition to the standard coating buildup, additional coats may be required.

Notes

Cleaning and maintenance

To clean painted surfaces, use a soft cloth, dry or damp, but do not use abrasive, solvent-based, or caustic substances. Clean without applying excessive pressure (do not polish the surfaces). Perform a test cleaning beforehand in an inconspicuous area. Only clean surfaces that have completely dried and have hardened.

Further information

Follow the instructions on the data sheets of the products used.

Remark

This Data Sheet is based on extensive development work and years of practical experience. The translation corresponds to the current German version, in compliance with the German laws, regulations, standards and guidelines. Its content does not constitute a contractual legal relationship. The user/buyer is not released from the responsibility of checking our products to ensure they are suitable for the intended application. In addition, our general terms of business apply.

When a new version of this Data Sheet with updated information is published, the previous version no longer applies. The current version is available on our website.

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