



Aqua TL-412 Stair Varnish

Abrasion-resistant 1K finish with a high solids content

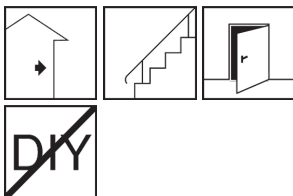


Colour	Availability		
	Quantity per pallet	96	22
	Size / Quantity	5 l	20 l
	Type of container	Tin bucket	Tin bucket
	Container code	05	20
	Art. no.		
10 dull matt			
clear	2347	■	■
special colours	2366		■
20 matt			
clear	2370	■	■
30 semi-matt			
clear	2373	■	■
special colours	3819	■	■
50 silk gloss			
clear	2372	■	■

Application rate 100 - 150 ml/m² per coat



Range of use



- Interior wood
- Primer & top coat
- Solid wood & veneers
- Wooden stairs
- Living room & bedroom furniture
- Interior finishing work: e.g. panels, borders, cladding & interior doors
- As a glass lacquer (in combination with Aqua VGA-485)
- For use by professionals

Property profile



- Quick-drying and easy to sand
- Excellent build (after just 2 coats of varnish)
- Can also be used on vertical surfaces
- Excellent de-foaming action, even on vertical surfaces and dark substrates
- Resistant to abrasion and scratches
- No creaking
- Resistant to chemicals: DIN 68861, 1B (except for alcohol)
- Good resistance to a wide range of commercially available hand creams
- With the addition of SM-820: "R10" slip resistance
- Fire behaviour according to DIN EN 13501-1: C-s1,d0 on suitable substrates
- Suitable for interior finishing of ships (IMO)
- 2K ready: improvement of the resistance to chemicals, scratches and abrasion, and improvement of the adhesion on glass by adding 2% Aqua VGA-485

Characteristic data of the product



Binder	Acrylate/PU dispersion
Density (20 °C)	Approx. 1.03 g/cm ³
Odour	Characteristic, odourless once dry

The values stated represent typical characteristic data of the product and are not to be understood as binding product specifications.

Certificates

- [DIN EN 71-3 "Migration of certain elements"](#)
- [Declaration of conformity \(Marine Equipment Directive\)](#)
- [Classification of fire behaviour according to DIN EN 13501-1 \(C-s1, d0\)](#)
- [With 4% SM-820 slip-resistant "R10" according to DIN 51130:2014](#)
- [French VOC emission test](#)

Test standards

DIN 68861-1B Resistance to chemicals (excluding alcohol)

Additional information

- [Water-based coating systems in staircase construction](#)
- [Sustainability data sheet](#)
- [Care instructions for sealed floors and stairs](#)
- [Care instructions for coated furniture surfaces](#)

Possible system products

- [Aqua VGA-485 Cross-Linking Agent & Glass Lacquer Additive \(3256\)](#)
- [SM-820 Texturing Agent \(1942\)](#)
- [Aqua CL-445 Colour Opaque 4 in 1 \(3796\)](#)
- [Aqua CL-440 Colour Opaque \(3802\)](#)
- [UMA-824 Universal Metal Adhesion Additive \(3249\)](#)
- [Aqua stains](#)
- [Aqua V-490-Retarder \(1939\)](#)
- [Aqua MM-825 Matting Agent \(3875\)](#)

Preparation

- **Substrate requirements**
The substrate must be clean, dry, free of dust, grease and loose substances, and prepared in the correct manner.
Wood moisture content: 8-12%
- **Substrate preparation**
Wash off greasy or resin-rich woods/substrates with WV-891 or V-890. Use UN-894 indoors on the construction site. Ensure good ventilation for solvents.
Sand wood using P 100 - 180 grit.
If colouring is desired, stain the substrate using Aqua KB-004, Aqua BB-007 or Aqua PB-006.
The product can also be used in translucent colours for an equalising effect (e.g. on different wooden surfaces).

Directions



- **Conditions for use**
Temperature of the material, air and substrate: from min. +18 °C to max. +25 °C.
- Stir well.
- Spray.
- Flow cup gun: nozzle size: 2.0 - 2.5 mm; atomiser air pressure: 2.0 - 3.0 bar.
- Airless spraying: nozzle size: 0.23 - 0.28 mm, material pressure: 80 - 120 bar.
- Airmix spraying: nozzle size: 0.23 - 0.28 mm, material pressure: 80 - 100 bar, atomiser air pressure: 1.2 - 2 bar.
- After drying and intermediate sanding (P 240 - 320), apply a second coat of the product.
- Repeat the process if necessary.
- Seal opened containers well and use contents as soon as possible.

Tips on use



- Check colour, adhesion and compatibility with the substrate by setting up a trial area.
- Before coating technically modified woods and wood-based materials, apply the product to a trial surface and conduct a suitability test on the desired area of use.
- If using as a transparent topcoat on surfaces with a colour varnish (improved resistance to metal rings and durability), one coat is sufficient. When applying over a colour varnish, add 5-10% of the Aqua colour varnish to the clear varnish in order to counteract colour changes.
- This product is marketed as a "no creaking" product when used on staircases. This is only possible if the stairs have been constructed correctly and professionally (design, accuracy of fit, wood moisture content).
- On non-wood substrates such as glass, sanded priming films, melamine resins and PU paints, adhesion can be significantly improved by adding Aqua VGA-485. Owing to the large number of possible material variants, careful checking must be carried out prior to application.
- **Drying**
Dust-dry: after approx. 45 minutes
Can be overcoated: after approx. 2-3 hours
Can be stacked: after drying overnight



Practice values at +20 °C and 65% relative humidity.
 Low temperatures, poor ventilation and high humidity delay drying.

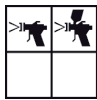
■ **Thinning**

Ready to use; if necessary, dilute with water (max. 5%).

Notes

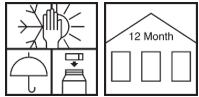
DIN EN 71-3 "Migration of certain elements":
 This product complies with the limits for the migration of heavy metals to children's toys according to DIN EN 71-3 and thus fulfils one of several further requirements for the safety of children's toys according to the EU "Toy Directive" (2009/48/EC).
 Observe the "Care instructions for sealed flooring and stairs".
 Please refer to the relevant test reports/certificates and the Technical Data Sheet for information on certified products and configurations.
 For applications according to the Marine Equipment Directive, the maximum wet application rate is 260 g/m².

Tools / Cleaning



Airless/airmix spraying equipment, flow cup gun
 Clean tools with water or Aqua RK-898 Cleaning Concentrate immediately after use.
 Ensure that any residue from cleaning is disposed of correctly.

Storage / Shelf life



If stored unopened in its original container in a cool, dry place and protected against frost, the product will keep for at least 12 months.

Safety data / Regulations

For further information on the safety aspects of transporting, storing and handling the product and on disposal and environmental matters, please see the current Safety Data Sheet.

Personal protective equipment

Respiratory protection with at least an A/P2 combination filter must be worn during spraying, together with safety goggles. Wear suitable protective gloves and clothing.

Disposal

Larger quantities of leftover product should be disposed of in the original containers in accordance with the applicable regulations. Completely empty, clean containers should be recycled. Do not dispose of together with household waste. Do not allow to enter the sewage system. Do not empty into drains.

VOC content as per the "Decopaint" Directive (2004/42/EC)

EU limit value for the product (cat A/i): max. 140 g/l (2010).
 This product contains < 140 g/l VOC.

VOC	
Kat.	A/i
2010:	140g/l
max.:	140g/l

Please note that the data and information given above have been calculated as guidelines in the laboratory and from real-life experience and are therefore not binding as a basic principle.

This information is therefore of a general nature only and describes our products and how they are used and worked with. In this respect, it must be borne in mind that the varied and diverse nature of the

prevailing working conditions, materials used and construction sites encountered means that not every individual case can be covered. In this respect, we therefore recommend either conducting tests or liaising with us in the event of any doubt. Unless we have provided express written assurance of the products' specific suitability or characteristics in respect of a contractually stipulated intended use, any technical application-related advice or instruction will never

be binding, even though it is provided to the best of our knowledge. In all other respects, our general terms and conditions of sale and delivery shall apply.

When a new version of this Technical Data Sheet is published, it shall replace the previous version.