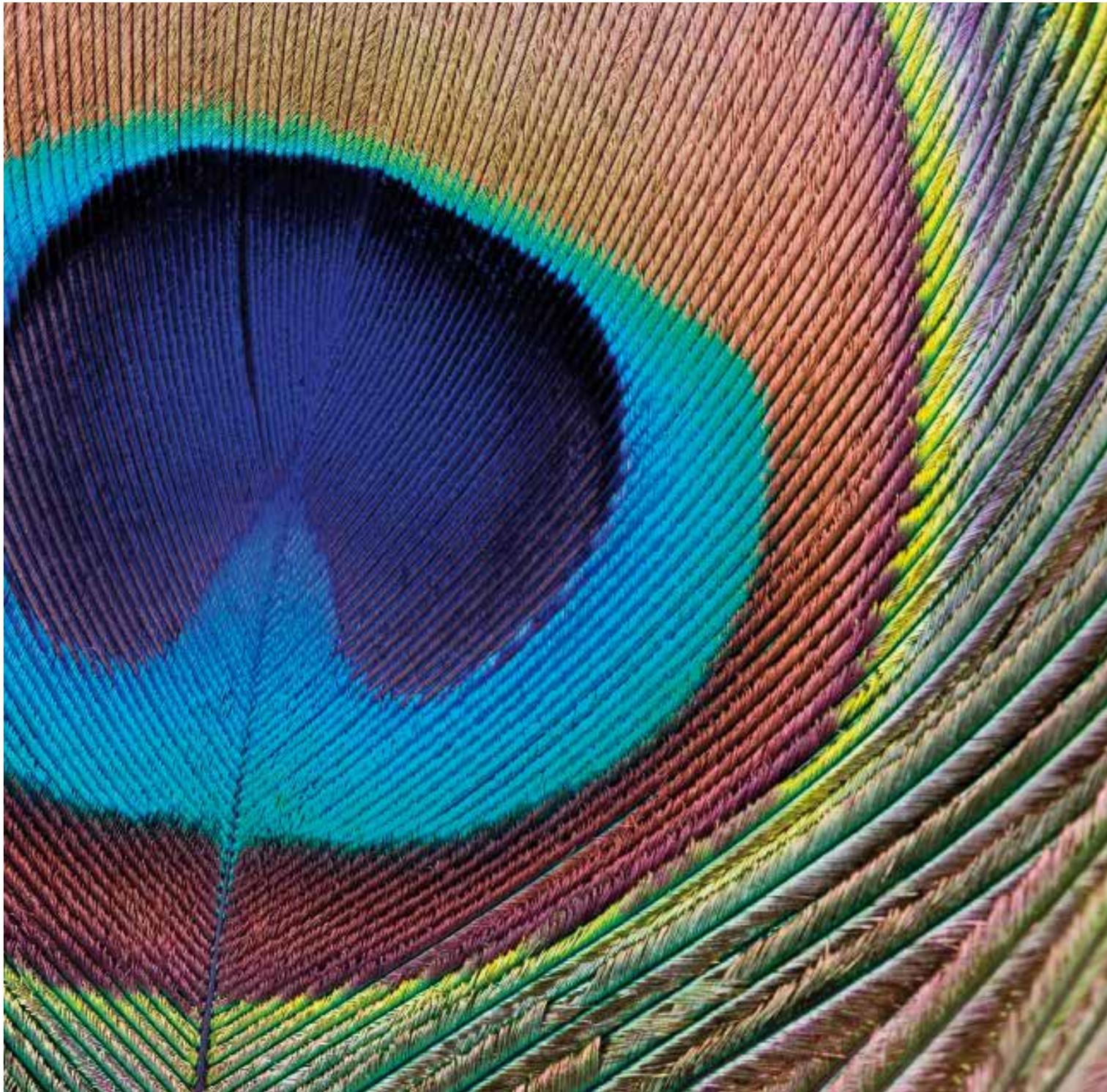




# SURFACE TREATMENT OF RESYSTA





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# 1. Basics

Resysta is a fiber-reinforced hybrid material which is 100% waterproof. Therefore, ingress of water cannot occur. Dissolving of the stain cannot happen and extensive sanding and restaining or resealing is not needed. Thanks to these properties, Resysta can be stained without flaking taking place.

Resysta FVG and Resysta RFS/RCC were especially adapted to the properties of Resysta. We only recommend these products to use for Resysta as they were specifically developed for Resysta regarding brushability and adherence.

Reasons for Resysta surface treatment:

- color design
- protection against dirt
- protection against color-fading

## FRONTAL AREA

Resysta does not experience capillary action. Therefore ingress of moisture at the edges cannot take place and a frontal area protection is not obligatory necessary.

Resysta may however be paint-coated for optical reasons.

## Properties of Resysta untreated

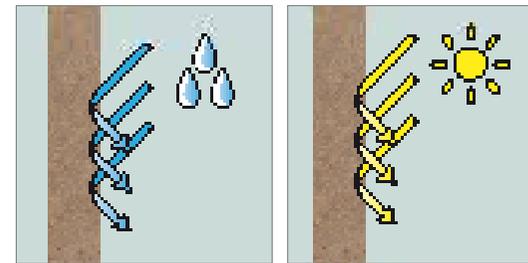
Due to the open structure of the surface, dirt can deposit more easily than on a sealed surface.

A slight color-fading of untreated Resysta may occur in the course of time.

However, penetration of water or dirt does not take place and Resysta does not gray.

Less maintenance effort has no adverse effect on the durability of the material.

The surface may be stained or sealed at a later stage.

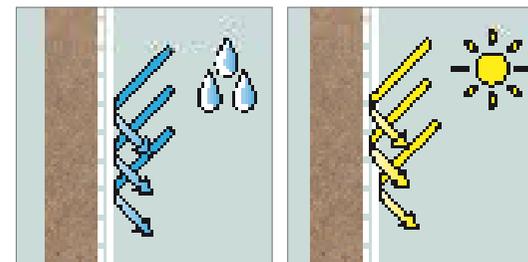


Water (rain) and UV-rays have a direct effect on the Resysta surface.

## Properties of Resysta with Stain (FVG) and with Sealer (RFS, RCC)

The surface is colorized with the transparent colored Resysta stains.

The Sealer prevents water (rain), dirt and grease to affect Resysta.



## Resysta + Stain + Sealer

Water and dirt are repelled.

UV-rays have little or no affect on Resysta surface.

Only slight color-changes in the course of time.

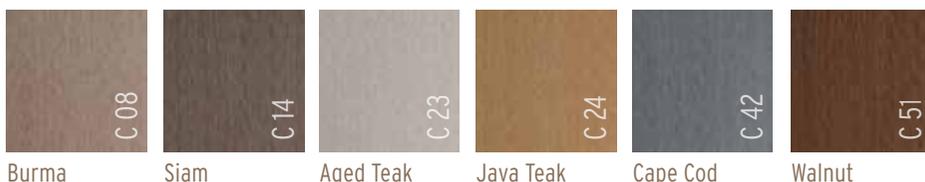
## Conclusion:

We highly recommend to use Stain and Sealer in order to protect the Resysta surface.

## 2. Product Range

### 2.1. Stain Colors

Choose from beautiful 6 standard stain colors.



Resysta Color Concept, special colors



Our color shades allow for quick and easy color-design of the Resysta surface and subsequent treatment, if necessary. The water-based colors can be processed odor neutral and are quick-drying.

The basis of Resysta stain FVG-C is a varnish system diluted with water and dyed with high-quality pigments. The overall color shade for transparent stained surfaces is reached by interaction of the subsurface shade and the transparent color shade of the finish. The overall color shade is dominated by the applied quantity of pigments.

Resysta stain FVG-C is delivered ready-mixed, and must not be diluted. One gallon of stain will cover approx. 400sqf of Resysta surface, depending on the application process.

### 2.2. Sealing with Resysta sealers

Resysta sealers are developed to protect the Resysta surface from other stains, dirt or grease. Thanks to their high performance almost any dirt particles can be removed with a gentle stream of water or with a soft brush without leaving any marks.

#### RFS10,30,50,70 Resysta Original sealer

Resysta RFS sealer comes in 4 different versions; 10, 30, 50, 70, which gives you the grade of glossiness you would like your Resysta surface to appear. The higher the number the brighter your Resysta shines.

#### RCC50 Resysta eco sealer

Resysta eco sealer RCC50 is the ideal choice for areas where application methods are limited due to environmental laws.

#### RSI30 Resysta UV sealer

The RSI30 Resysta UV Sealer was developed to cure fast under UV light with industrial finishers in mind, which require longer pot time and quick curing time.



Resysta stain was especially developed for coloring Resysta and is available in various color shades.



Resysta sealer protects the stain and the surface respectively.

## 3. General Information

Standard woodworking tools can be used for the processing of the material.

**SAWING:** Resysta may be ripped and cross-cut with all customary saws.

**MILLING:** Any profiles can be milled easily by means of customary woodworking machines.

**SANDING:** Resysta should be sanded in longitudinal direction only. Depending on the required surface structure, we recommend the use of sand paper with grit between 24 and 60. Fine-grit sand paper should only be used for the removal of dirt.

**DRILLING:** Drilling with customary standard wood drills.

### Bonding

Resysta may be glued with standard PU-adhesive or a suitable plastic adhesive. Contact adhesive manufacturer for detailed information.

## 4. Pre-Treatment

### Pre-Treatment of the material prior to color treatment

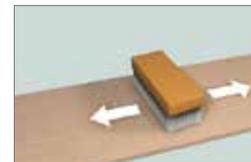
To ensure best color adhesion, Resysta should be prepared accordingly.



For the structure, Resysta profiles are generally pre-sanded with sand paper with 24 grit.

To remove light soiling and loose particles please use sand paper with 80-100 grit and gently sand manually.

For cutting edges, scratches or heavy soiling please use sand paper with 24-40 grit.



Loose particles and sanding dust may also be removed with a brush.

## 5. Resysta untreated

**Cleaning:** Dirt can easily be removed by means of a gentle jet of water (i.e. garden hose, high-pressure-cleaner with appropriate distance) or with a soft brush. Tenacious dirt (e.g. organic residues, fat) may also be removed with a stiff brush or by gentle sanding.

**Care/Maintenance:** Care/Maintenance is not needed. Resysta may be stained and sealed at a later stage. Prior to this treatment the profiles have to be thoroughly cleaned and gently sanded.

# 6. Color-Stain FVG

## 6.1 Application of the stain

To obtain a uniform and optimal color result, the stain should be applied at consistent basic conditions. We therefore recommend applying the stain before installation on each profile individually. Application temperature approx. 40° - 80°F, relative air humidity approx. 50 - 60%.



Please do not apply the stain under direct exposure to sunlight or at high risk of rain. The stain should be applied rapidly and with a flat paint-brush.

Drilling holes, bolt fittings and cutting edges that arise after installation, should be stained subsequently. Scratches and damages can be refinished by applying the stain on the damaged surface with a cloth.

**For detailed information please refer to the application instructions for the stain.**

## 6.2 Care

Care on a regular basis is not required.

## 6.3 Cleaning

Dirt can easily be removed by means of a gentle jet of water or with a soft brush. Tenacious dirt (e.g. organic residues, fat) may also be removed with a stiff brush or 24-40 grit

## 6.4 Maintenance

Depending on the area of application (flooring, ceiling, cladding) the stain can wear to a greater or lesser extent in the course of time. If requested, the stain can be renewed at any time in diluted form (i.e. ratio: 3 parts water - 1 part stain).

Prior to this, the stained surface should be thoroughly cleaned (optionally gently sanded). Traces of usage may be stained partially.

## 6.5 Refinishing

Rub with a soft cloth in case of minor scratches or damages. Gently sand larger areas and reapply the stain with a paint-brush.

## 6.6 Removal

- Sand off the stain (sand paper: 24-40 grit).
- Apply the stain.

# 7. Sealer RFS, RCC, RSI

Application of the sealer Resysta RFS closes the surface and it will be more hard-wearing. Thanks to the surface, dirt particles do not adhere and are therefore easy to remove.



## 7.1 Application

The sealer consists of 2 components and should - after mixing - be applied promptly (with a flat paint-brush) within 30 minutes. The sealer should not be applied at direct exposure to sunlight.

**Please refer to the processing instructions of the sealer for detailed information.**

## 7.2 Care

Care on a regular basis is not required.

## 7.3 Cleaning

For cleaning just use water and some detergent (soapy suds). Tenacious dirt (e.g. organic residues, fat) may also be removed with a soft brush.

## 7.4 Maintenance

Maintenance is basically not required. Depending on the area of application (flooring, ceiling, cladding) the stain can wear to a greater or lesser extent in the course of time. To renew the sealer, the old layer has to be removed before sealing again.

## 7.5 Refinishing

In the case of mechanical damages (e.g. scratches) moisture will not penetrate Resysta. Flaking of the coating will not occur. To refinish the damaged areas, reseal the surface after cleaning and gentle sanding. To mend deep scratches the use of a color-providing stain is recommended. Gentle sanding and rubbing in the stain (e.g. with a cloth) is sufficient.

## 7.6 Removal

- Sand off the sealer thoroughly (sand paper with 24-60 grit).
- Reapply the sealer.

## 8. Further Information

### Mildew spores, heavy soiling

Depending on the environment, organic residues may deposit on Resysta. This is the ideal medium for mildew spores contained in the ambient air which could cause staining. Depending on the degree of soiling, we recommend to thoroughly clean Resysta and remove organic matter (e.g. foliage, leaves). This procedure will not harm Resysta. Stains can be removed by gentle sanding or intensive brushing.

### Thermal expansion

When using dark colors, the material heating and consequential thermal expansion is higher than with lighter color shades. The difference may be 10 - 15°. This has to be considered at installation.

### Instructions of use

Stain and sealer are subject to physical wearout. The useful life period depends on the individual use and application. Abrasion and mechanical strain may result in scratches and increased abrasion of the surface. Surfaces which are subject to strong mechanical strain can be protected over a longer period of time by repeated application of the sealer.

## 9. Technical Data

Density	ASTM D2395:2002	approx.1.46 kg/m <sup>3</sup>
Coefficient of Linear Thermal Expansion	ASTM D696	3.6x10(-5)mC
Water Absorption and Air Humidity Behaviour	ASTM D1037:2006a	none or very low water absorption (only surface wetting)
Weathering and UV Resistance	QUV Test	Resysta surfaces treated with stain and sealer show extremely high resistance
Skid Resistance	ASTM 2047	highest rating
Fire Behaviour (British Standard)	BS 476 Part 6 &7	B2, normal flammability (by adding flame retardants, a higher rating of B1 can be reached)
Fire Behaviour (US Standard)	ASTM E84	A Rating (flame propagation 25, smoke emission 450)
Fire Behaviour (British Standard)	BS 476 Part 6&7	Rating 1
Durability (Resistance to Wood-Destructive Fungi)	DINV ENV 12038:2002	the material has not been affected, highest durability - Class 1
Emission	DIN EB ISO 9001/14001	passed
Brinell Hardness (HB)	EN 1534	81,1 N/mm <sup>2</sup>
Friction Coefficient $\mu$ untreated	EN 13893	0,46
Friction Coefficient $\mu$ with 2K	EN 13894	0,52
Screw Withdrawal Resistance	EN 320.2011-07	5777 N
Heat conductivity ( $\lambda$ )	EN 12664	0.199 W/(mK)
Water vapor permeability	DIN EN ISO 12572	$\mu$ =1300 -> sd 7.22m diffusion inhibiting
Bending Strength	ISO 178	46 N/mm <sup>2</sup>
Bending Modulus	ISO 178	3850 N/mm <sup>2</sup>
Tensile Strength	ISO 527	21,8 N/mm <sup>2</sup>
Tensile Modulus	ISO 527	2340 N/mm <sup>2</sup>
Shearing Strength	EN 392	16,8 N/mm <sup>2</sup>
Resistance to Mould Fungal Decay	CEN/TS 15083-2	The material features almost no mass loss, highest durability classification 1 (very durable)



# The Future Formula Is Called Resysta

Raw Materials used:



approx. 60% rice husks + approx. 22% rock salt + approx. 18% mineral oil = Resysta

All specifications provided are subject to our installation guidelines and appropriate use at outdoor exposure.

Dimension tolerances are subject to production factors. Obvious defects have to be communicated prior to installation. These instructions may be adapted to technical progress without prior notice. A download link for the current version is available at [www.resysta.com](http://www.resysta.com).

Subject to alteration. Slight deviations in color, photos and graphics could occur due to printing process.

[www.resysta.com](http://www.resysta.com)