



SURFACE AND COLOURS - VISIBLE QUALITY



## CONTENTS

DIVERSITY & NATURALNESS 04

CERTIFICATES & ENVIRONMENTAL STANDARDS 14

PROCESSING & COATING 18

APPEARANCE & SURFACE FINISH 24

THE RIGHT WOOD CARE & MAINTENANCE 42

WIND AND WEATHER PROTECTION
WITH WOOD/ALUMINIUM SYSTEMS 44

WOOD CREATES AN INDIVIDUAL

ATMOSPHERE, PARTICULARLY IN

LIVING SPACES

## DIVERSITY AND NATURALNESS

Arguments in favour of a unique material

The production of wooden systems requires sensitivity, experience and optimum wood treatment. As a manufacturer of bi-folding doors, wintergardens and glass canopies utilising materials made of wood, wood/aluminium or aluminium with more than 35 years of market experience, Solarlux is the ideal partner. In our product world, aesthetics come together with the highest standards in design and the environmentally sound processing of materials. This guarantees that the numerous benefi s come into their own perfectly, especially those offered by wood: when you choose a wooden system you get a custom product, one of a kind, that will be a lifelong source of pleasure.







## Some of the benefits at a glance

- · Wood creates a cosy living atmosphere
- Wooden systems can absorb air humidity, store it and release it back into the air of the room
- · Wood indicates a love of nature
- · Wood does not become electrostatically charged
- · As a raw material, wood retains a stable shape and does not change in length when subjected to fluc uations in temperature
- · Wooden systems save on energy, even during production



A 1 CM THICK BOARD INSULATES AS WELL AS A

10 CM THICK BRICK WALL- WOODEN SYSTEMS ARE

HIGHLY SUITED FOR USE IN ENERGY EFFICIENT

SUSTAINABLE BUILDING PHILOSOPHIES

## SOLARLUX SYSTEMS MADE OF WOOD AND WOOD/ALUMINIUM









#### **BI-FOLDING DOORS**

The Woodline bi-folding glass door (wood) with a sight line of only 143 mm in the mitre and Combiline (wood/aluminium) with a sight line of only 147 mm come with structural wood protection and technically proficient solutions, such as high-quality carriages, TwinX® panel centring, a special locking mechanism and the option of connecting the door to an alarm system. A high degree of safety thanks to burglar resistance is guaranteed in accordance with RC2 or RC2N, even for coniferous wood. The use of accessible floor t acks provides the fl xibility for a wide range of applications.

#### WINTERGARDENS

The SDL Avantgarde wintergarden with its slim visible rafters only 60 mm wide offers the appeal of a cosy ambience on the inside, while aluminium covers protect the wood from the outside. The drainage of the roof system is designed in a cascade pattern. In combination with the Woodline or Combiline bi-folding door, this wintergarden is a truly special, fully fledged living s ace.

### **GLASS CANOPIES**

The SDL Aura glass canopy is a wood/aluminium profile ystem with internal statics and visible rafters only 60 mm wide that is highly weatherproof thanks to its clip-on aluminium cover shell. It is sealed using EPDM system seals; no additional liquid sealants are required. The forward positioning of the crossbeam glazing provides the rafters and crossbeams with optimum protection from the weather. Lighting and awnings can be integrated to the system to measure, and are available directly from Solarlux.

## TYPES OF WOOD AND THEIR PROPERTIES

Wood is unmistakeable. That is exactly what makes it so attractive for many people. No two pieces are alike, and they have different properties depending on the variety and origin of the natural product. The wide variety of different woods, the surfaces of individual types of wood, and the variation in colour and texture. all these qualities make wood the most individual material there is.

Light or dark, porous or smooth – in combination with different paints, varnishes and oils, the woods used by Solarlux provide a huge range of colour and design options. Since wooden Solarlux products are extremely durable and often purchased for life, it is worth getting to know the characteristics of the different types of wood before you buy.



WOODS MERANTI, SPRUCE AND PINE,
ALL SYSTEMS ARE AVAILABLE IN
ANY OTHER WOOD OF YOUR CHOICE

## Overview of the types of wood available







#### SPRUCE

This coniferous wood is a yellow-white colour and is low on resin, and has been one of the most important German timber tree species for many years. Spruce wood is light, soft and relatively fl xible, and can also sustain heavy loads, which means it has a low weight and is easy to work with. The growth rings are clearly visible on account of the difference in appearance between the dark summer wood and the light spring wood of the following year, which gives the timber a decorative character.

- · Coniferous wood
- · Light and soft
- · Minimal shrinkage
- · Textured surface

#### PINE

Native pine is one of the most commonly used types of wood, both for making windows and for woodworking in general. Its outstanding structural and mechanical properties have helped pine find is way into all areas of the industry. Pine wood is relatively soft, yet still guarantees good stability. Pine has a relative high resin content.

- · Coniferous wood
- · Soft wood, but still stable
- · Smooth surface

## LARCH

The larch is a native wood and classified a coniferous. Larch is the hardest and heaviest coniferous wood after the yew, and is known in particular for its red colour and distinctive grain. There is very little twisting and deformation in larch wood, which makes it an ideal raw material. Windows made of larch are chosen primarily for their old-fashioned appearance and are thus perfect for timber-framed houses and other houses with a more rustic design. Their high raw density and equally high degree of hardness makes larch windows especially weatherproof.

- · Coniferous wood
- · Particularly hard
- · Long service life
- · Fine-pore surface







#### MERANTI

Meranti is a hard deciduous wood with a diffuse pore structure. It is an extremely resistant type of wood and olive-brown in colour. One type, "Dark Red Meranti", requires little care & maintenance and has a high density, making it a perfect wood for windows. The meranti used by Solarlux has a volume weight of at least 450 kg/m³.

- · Deciduous wood
- Resistant
- · Low-maintenance
- · Weatherproof
- Fine-pore surface
- · Quality feature 450+

#### OAK

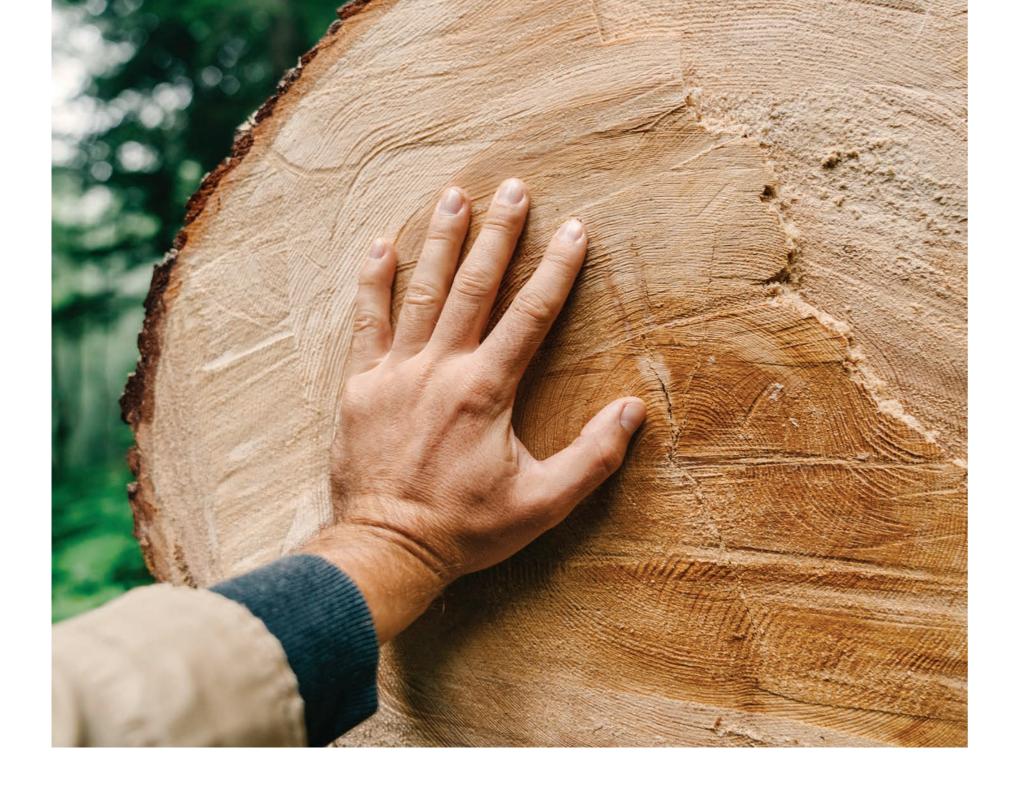
This native deciduous tree stands out on account of its regular colour core formation, which runs from greyish yellow to light brown. Oak wood is relatively heavy and hard, although it is nevertheless fl xible to a certain extent. Its main characteristic is its extreme hardness and resulting durability. Oak is more expensive to buy than other types of wood, but its charm, warmth and vibrancy make it well worth the investment.

- · Deciduous wood
- · High degree of hardness
- · High volume weight
- Durable
- Weatherproof
- · Smooth surface

#### ACCOYA®

Accoya® is a beautiful soft wood characterised by its high hardiness. Accoya® wood is modified using the a etylation method. This signifi antly reduces the ability of the wood to absorb water. The wood's hardiness gives it great shape retention and makes it the world's leading high-performance wood. The perfect material for windows, doors and facades.

- · Coniferous wood
- · Durable
- · High shape retention
- · Very hardy thanks to natural modifi ation
- · Leading high-performance wood
- Weatherproof



# CERTIFICATES & ENVIRONMENTAL STANDARDS

Sustainable quality that can be documented

From a holistic viewpoint, wood is the most environmentally friendly material there is. The woods used by Solarlux are sourced from sustainable forestry and are FSC® or PEFC-certified. oth our certifi ates in this area set high standards, particularly in terms of CO<sub>2</sub> neutrality, the environmental sustainability of the forest management system, the quality of the work and the social expertise of the forestry companies we work with. Wood and wooden products may be marked with a corresponding seal of quality, providing the companies involved and the materials used meet all the requirements set by the relevant certifying body, enabling the Chain of Custody (COC) to be traced completely.





Forest Management

## PEFC (PROGRAMME FOR THE ENDORSEMENT OF FOREST CERTIFICATION SCHEMES)

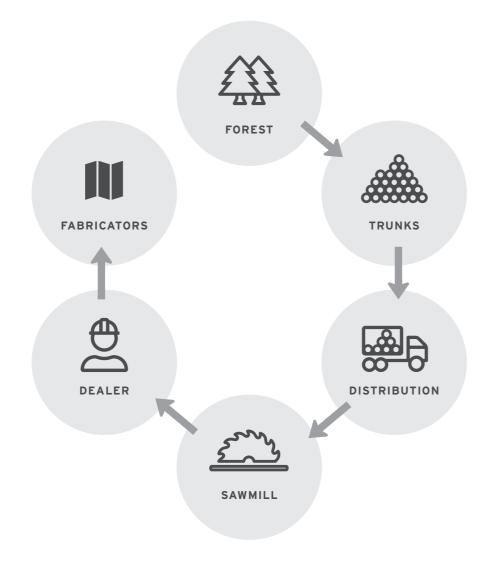
PEFC is a transparent and independent system for ensuring sustainable forest management and thus a global "Forest MOT". The abbreviation PEFC stands for "Programme for the Endorsement of Forest Certifi ation Schemes". Forest certifi ation in compliance with the PEFC standards is based on extremely strict guidelines governing the sustainable management of forests. This management is monitored by expert and independent organisations. If a product made of wood has the PEFC seal, this means that the entire production process – from the raw material to the finished final oduct – is certified and moni ored by independent experts.



The mark of responsible forestry

#### FSC® (FOREST STEWARDSHIP COUNCIL)

The Forest Stewardship Council (FSC®) mission is to promote environmentally sound, socially beneficial an economically prosperous management of forests. The independent and non-profi , non-governmental organisation was founded in 1993 as a result of the "Environment and Development" conference in Rio de Janeiro. Today, the FSC® is represented by national workgroups in more than 80 countries. The FSC® system secures use of the forests in line with the social, economic and ecological needs of current and future generations.



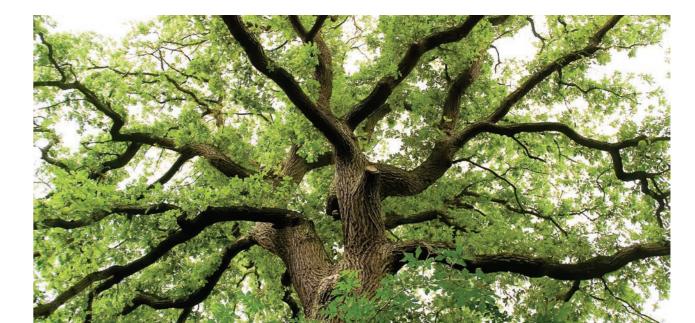
IDENTIFICATION OF THE ORIGIN

OF FSC®AND PEFC WOODS



#### **ENVIRONMENTALLY SOUND PRODUCTION**

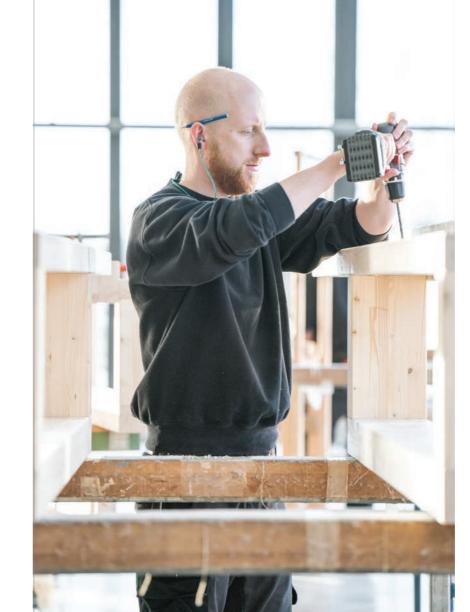
The use of water-based varnishes, energy-saving production with recycling of water and heat, the multi-award-winning building and energy technology which goes easy on resources, and efforts to ensure environmental awareness among all our employees are also taken into account in our sustainability concept. Our success in incorporating and combining all these environmental factors is also reflec ed in our certification in accordance with the ISO 14001 environmental management standard, which stipulates the internationally recognised requirements for an environmental management system. When you choose a Solarlux system made of wood, you therefore opt not only for a sustainable material, but also for environmentally sound production for your new bi-folding door, wintergarden or glass canopy.





PROCESSING AND COATING

State-of-the-art machinery & precise workmanship



More than 35 years experience in wood production speak to the quality we offer at Solarlux. We guarantee top-class production expertise with minimal tolerances. This starts with storing the raw woods at a constant temperature and humidity to guarantee optimum processing.







The interplay between the latest generation of fully automated processing centres and the manual dexterity of highly qualified p ofessionals guarantees perfect corner joints, linear contours, and drilling and milling work. A high-precision, bespoke approach to all our systems ensures that they fulfil very requirement. Complex structures are set up in wood production to guarantee smooth installation at the customer's site.

Every work step is performed by professionals with many years of experience, in accordance with ergonomic and environmental principles. Our certificate for compliance with quality standards, which was awarded by an independent auditor, guarantees the highest production quality for your Solarlux system.





ONLY BESPOKE. IT IS ALSO TESTED

AND CERTIFIED REGULARLY BY

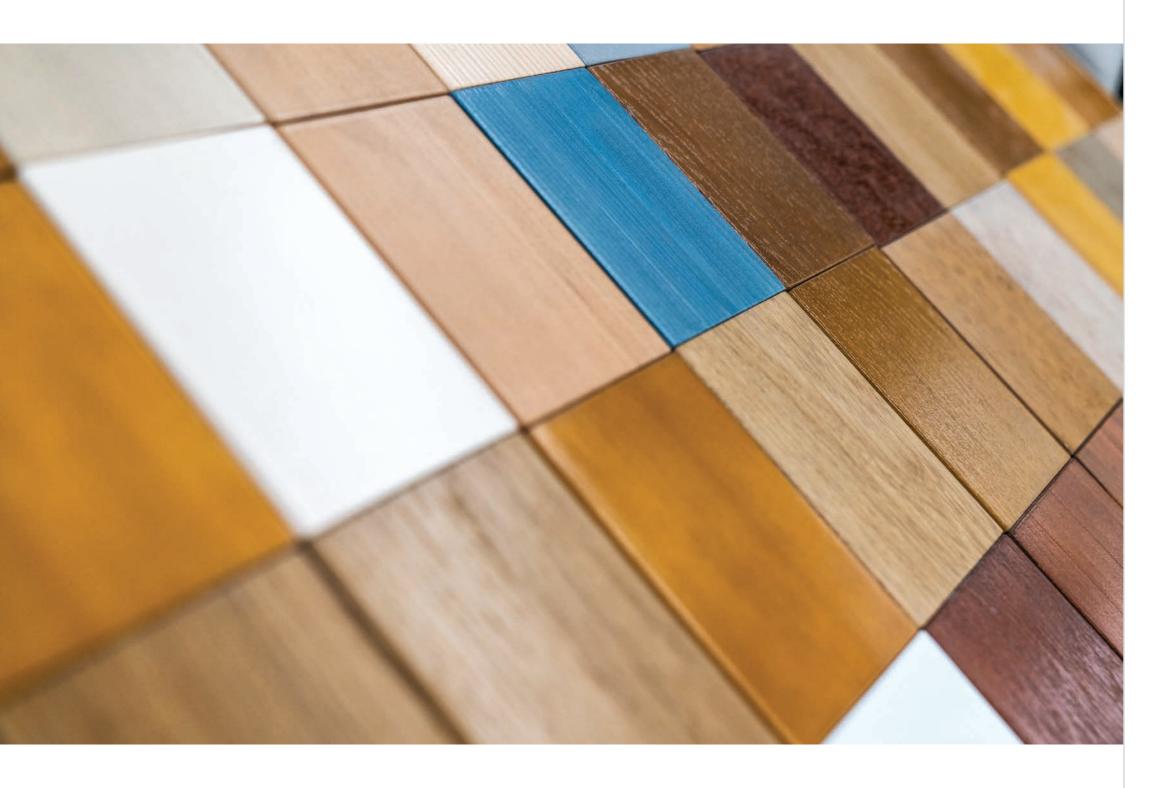
INDEPENDENT TEST INSTITUTES



## WOODEN SURFACES IN FURNITURE QUALITY

The beauty of our wood is enhanced even further by our high-quality coating, which protects the surface from the effects of the weather. Every varnishing process used at Solarlux includes three or four coats, depending on the type of wood and the corresponding requirements. In the fi st production cycle, the wood is impregnated and primed on a state-of-theart fl w-coat and drying system. After intermediate sanding by hand, the wood is then given a primary and secondary coat of varnish by a varnishing robot, which guarantees a perfectly even coat of varnish by scanning the wood with a laser scanner.





# APPEARANCE AND SURFACE FINISH

Paints, varnishes and oils

Our surface treatment is completely individual. Whether you opt for varnish coatings, hand-oiled surfaces or opaque coats, Solarlux products are always available in any colour of your choice. We generally rely on premium quality from Remmers for our coating materials. Choosing a colour variant with Remmer's premium coating gives you the option of signing up for the Remmers System Guarantee – and thus the promise of "No renovation coatings necessary for 10 years". Of course, we can also use paints from sikkens, Adler or Teknos on request, so that your Solarlux system can be made to perfectly match the windows and doors already fi ted in your home.

Thanks to this fl xibility in all areas, every system, be it a bi-folding door, wintergarden or glass canopy, blends into the existing architecture of the house and harmonises with the individual lifestyle of its owners.











## EXTENDED GUARANTEE FOR YOUR WOOD SYSTEM

If you opt for our premium coating from Remmers, you will have the option of signing up for the Remmers System Guarantee (RSG). Not every manufacturer of wooden systems is automatically entitled to grant this guarantee – they fi st have to fulfil a ariety of criteria related to the quality of the coating. The Remmers System Guarantee is a 10-year guarantee for the surface of your wooden elements that have been coated with selected varnishes from Remmers. Remmers premium coating systems result in elegant and extremely durable surfaces which keep wooden systems looking young for years. If you opt for a surface coating from Remmers, you can be sure that your house or building project is going to be equipped with a high-quality wooden system with optimum protection.

#### 10-YEAR GUARANTEE





#### AND THIS IS HOW THE GUARANTEE IS GRANTED

Solarlux is specially trained in the production of top quality surfaces for wooden elements, and our partner Remmers also carries out regular quality inspections. This guarantees a consistently high quality level for the wood surfaces. As soon as you have decided on the configu ation of your wooden element, an automatic check is carried out to see if the surface of your choice is RSG-compatible. Then there is just one step left before you can benefi from the Remmers-System-Guarantee – following the smooth and professional installation of your high-quality wooden element, send the completed guarantee card that you received in advance from Solarlux or your certified olarlux partner off to Remmers. Remmers will then register your wooden element and send you a certificate confirming the guarantee.

Degree of gloss: MattShade: NussbaumType of wood: Meranti



## DESIGN THROUGH COLOURS & DEGREES OF GLOSS

Purchasers of a Solarlux bi-folding door, wintergarden or glass canopy made of wood have almost unlimited creative freedom in designing their bespoke solution. In addition to a variety of RAL colours, varnish shades and oils for their wooden surfaces, they can also choose between matt and silk gloss surfaces for a completely individual appearance and style. There is no extra charge for the different degrees of gloss both matt and silk gloss cost the same.

The degrees of gloss illustrated here are intended to give you an idea of the differences between the options and provide examples of matt and silk gloss finish s in the same shade and on the same type of wood.



### ONE SHADE, DIFFERENT TYPES OF WOOD

On account of the different wood textures, grains and natural colours, the appearance of one and the same colour can vary greatly from one wood to the next. As an example, we have used the shade "Teak" on four different types of wood. Spruce, meranti, oak and Accoya® so you can compare the differences for yourself.



THE APPEARANCE OF THE WOODEN

ELEMENTS IS INFLUENCED BY THE DEGREE

OF GLOSS AND THE TYPE OF WOOD USED

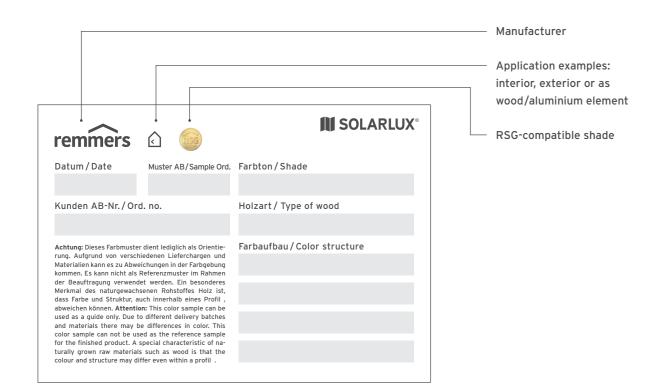


## Different woods, different colours

You will find a election of shades below. Please note that the following colour samples are intended for guidance purposes only. The colour may vary due to differences between delivery batches and materials. These samples are intended solely as reference samples for the finished p oduct. Please get in touch with us to request your own, individual, real wood sample!

#### YOUR INDIVIDUAL REAL WOOD SAMPLE

Should you request a real wood sample, you will find a label on the ack of it containing the following explanatory information:



#### KEY FOR THE SHADES -

The following colours are marked accordingly - providing they are RSG-compatible. Please note that some colours are only RSG-compatible when used in wood/aluminium system variants. The key shows whether the colour can only be used on the interior or on both interior and exterior.



Application on the interior or as a wood/aluminium element



Application on the interior and exterior or as a wood/ luminium element

## Varnish shades







- · Shade: Teak
- · Type of wood: Spruce
- · Price group 1

- · Shade: Afromosia
  - Type of wood: Spruce
  - · Price group 1

- · Shade: Pine
  - · Type of wood: Spruce
  - · Price group 1









- · Shade: Pure Pine
- · Type of wood: Spruce
- · Price group 1

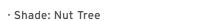
- · Shade: Cherry Tree
- · Type of wood: Spruce
- · Price group 1

- · Shade: Dark Teak · Type of wood: Spruce
- · Price group 1









· Type of wood: Spruce · Price group 2

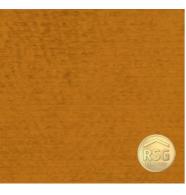






· Type of wood: Spruce

· Price group 1



· Shade: Bright Oak

· Price group 1

· Type of wood: Spruce

><



· Shade: Noble Brown

· Type of wood: Spruce

· Price group 1



· Shade: Dark Palisander

· Type of wood: Spruce

· Price group 2



- · Shade: clear
- · Type of wood: Spruce
- · Price group 1







· Type of wood: Oak

· Price group 1



- · Shade: Spruce neutral
  - · Type of wood: Spruce
  - · 5 years, UV protection for exterior
  - · Price group 2





· Shade: Oak neutral · Type of wood: Oak



· 5 years, UV protection for exterior

· Price group 2



- · Shade: Milk White
- · Type of wood: Spruce
- · This shade can only be used on spruce

· Price group 2



- · Shade: Scandinavian Grey
- · Type of wood: Spruce
- · Price group 3



- · Shade: Milano Grey
- · Type of wood: Spruce
- · Price group 3







· Price group 3

· Type of wood: Spruce



- · Shade: Italian Teak · Type of wood: Spruce
- · Price group 3



- · Type of wood: Spruce
- · Price group 2

· Shade: Walnut





- · Shade: Nordic Grey
- · Type of wood: Spruce
- · Price group 3



- · Shade: Milano Grey 50 %
- · Type of wood: Spruce
- · Price group 3



- · Shade: Nordic Grey 50 %
- · Type of wood: Spruce
- · Price group 3





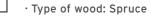
- · Type of wood: Spruce
- · Price group 3



- · Shade: Light Grey
- · Type of wood: Spruce · This shade can only be used on
- spruce · Price group 3













### Colour of your choice according to sample

We offer you the option of buying your wooden elements in the colour of your choice, from the manufacturer of your choice. This allows you to match your new elements perfectly to your existing wooden windows or doors. For this, we require a real wood sample of the existing elements, the precise paint texture and the technical data sheet for the paint.

### Dichroism/NCS colours

- · A two-coloured design corresponds to price group 4
- · NCS colours (depending on selection) correspond to price group 2





- · Type of wood: Spruce
- · Price group 3



## RAL colours



- · Shade: RAL 1015 Light ivory
- · Type of wood: Spruce
- · Price group 1



- · Shade: RAL 3011 Brown red
- · Type of wood: Spruce
- · Price group 1



- · Shade: RAL 5003 Sapphire blue
- · Type of wood: Spruce
- · Price group 1





- · Shade: RAL 5011 Steel blue
- · Type of wood: Spruce
- · Price group 2

- · Shade: RAL 5014 Pigeon blue
- · Type of wood: Spruce
- · Price group 1

- · Shade: RAL 6005 Moss green
- · Type of wood: Spruce
- · Price group 1







- · Shade: RAL 6009 Fir green
- · Type of wood: Spruce
- · Price group 1

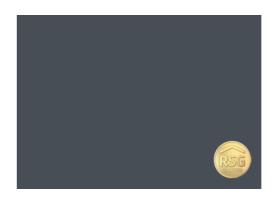


- · Shade: RAL 7004 Signal grey · Type of wood: Spruce
- · Price group 1



- · Shade: RAL 7006 Beige grey
- · Type of wood: Spruce
- · Price group 1







- · Type of wood: Spruce
- · Price group 1



- · Shade: RAL 7016 Anthracite grey
- · Type of wood: Spruce
- · Price group 1



- · Shade: RAL 7024 Graphite grey
- · Type of wood: Spruce
- · Price group 1









- · Type of wood: Spruce
- · Price group 1





- · Shade: RAL 7038 Agate grey
- · Type of wood: Spruce

· Shade: RAL 9001 Cream

· Price group 1

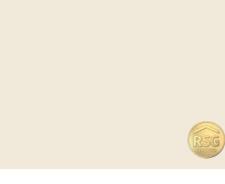
· Price group 1

- · Shade: RAL 7039 Quartz grey
- · Type of wood: Spruce
- · Price group 1





- · Shade: RAL 7040 Window grey
- · Type of wood: Spruce
- · Price group 1



- · Shade: RAL 9003 Signal white
- · Type of wood: Spruce · Type of wood: Spruce
  - · Price group 1





- · Shade: RAL 9016 Traffic whi e
- · Type of wood: Spruce
- · Price group 1

- · Shade: RAL 9010 Pure white ><

  - · Type of wood: Spruce
  - · Price group 1



## Oiled surfaces



- · Shade: clear oiled
- · Type of wood: Spruce
- · Price group 2



- · Shade: clear oiled
- · Type of wood: Larch
- · Price group 2



- · Shade: clear oiled
  - · Type of wood: Oak
  - · Price group 2



## THE RIGHT WOOD CARE & MAINTENANCE

## The Rosenheim coating groups table

The stress groups for wooden elements can be determined according to German specifi ations using the Rosenheim coating groups table. Factors such as the size of the roof overhang, the type of installation and location of the building play a decisive role here. This setup is used to determine the degree of weathering. The stress groups always apply to the side of the building that is exposed to the weather. The stress is reduced by one (group 2) or two (groups 3 and 4) grades for the inner side. Larger roof overhangs and windows that are set back can signifi antly reduce the stress and extend renovation intervals.

		Roof overhang large > 0.8 m	Roof overhang medium 0.5 – 0.8 m	Roof overhang small <0.5 m
Location of the building	Window installation			
On level ground & 1st - 3rd floo	Set back ⋅> 0.1 m	0	1	2
	Flush with the facade · < 0.1 m	1	2	3
On a hillside, detached, from 3rd floo	Set back → 0.1 m	0	2	3
	Flush with the facade $\cdot$ < 0.1 m	1	3	3
In a mountainous or coastal region	Set back → 0.1 m	1	3	4
	Flush with the facade $\cdot$ < 0.1 m	2	4	4

Load groups and weathering for wooden windows on the weather side

0 = No weathering

1 = Slight weathering

2 = Medium weathering

3 = Heavy weathering

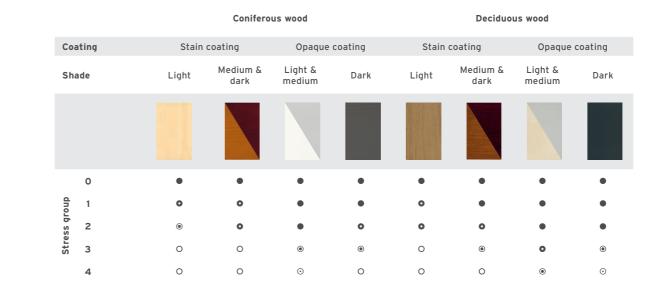
4 = Extreme weathering

## THE RIGHT WOOD CARE & MAINTENANCE 43



#### HOW TO ENSURE YOUR WOODEN SYSTEM GIVES YOU YEARS OF JOY

The renovation work required to help maintain the value of your system must be carried out at different intervals depending on the stress group, type of wood and type of coating. Different coatings can extend these necessary renovation intervals quite significantly. You can determine the optimum coating for your requirements using the table.



- 5 and more years
- 3-4.5 years
- 2 2.5 years
- ⊙ Less than 2 years
- O Signifi antly less than 2 years

Note: Design, execution, coating and installation must be carried out properly. If the wood is damaged it must be repaired immediately.



## WIND AND WEATHER PROTECTION WITH WOOD/ALUMINIUM SYSTEMS

Durable systems, optimum design possibilities

The use of wood/aluminium systems offers a wide range of benefi s. Protected by the aluminium cover applied to the wood, wintergarden roofs and bi-folding doors are extremely resistant to the weather and lend your living space the cosy atmosphere of a wooden system. When you choose a wood/aluminium system, you opt for top quality.

### BENEFITS OF THE WOOD/ALUMINIUM MATERIAL COMBINATION

- · Weather-resistant thanks to aluminium cover
- · Cosy and natural atmosphere in the living space
- · High thermal insulation, low maintenance effort
- · High-end product for high-quality projects
- · Optimum range of design options thanks to different colours on the inside and outside

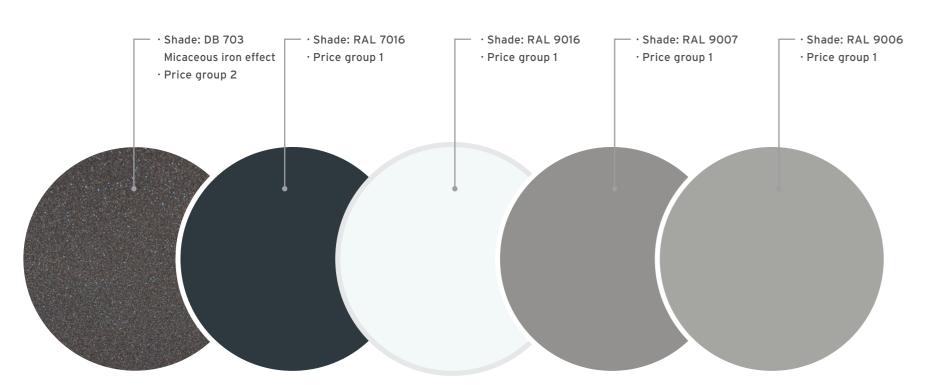


#### HIGH-QUALITY AND INDIVIDUAL COATING FOR ALUMINIUM

Solarlux's range of colours for aluminium, includes around 30 RAL colours in matt or silk gloss, all of which are available at no extra cost. All our aluminium and wood/aluminium systems can be extensively customised to match the house design. Of course special colours in RAL, Duraxal, Tiger, DB and Eloxal are also available of course. We use our own in-house coating plant with clean room process – one of the most modern in Europe – to ensure top surface quality for our aluminium systems.

## ALL COLOURS AVAILABLE IN DIFFERENT DEGREES OF GLOSS

#### THE FIVE MOST POPULAR COLOURS FOR OUR ALUMINIUM AND WOOD/ALUMINIUM SYSTEMS



#### THE 30 COLOURS IN THE SOLARLUX COLOUR RANGE FOR ALUMINIUM







IS CERTIFIED TO INTER-NATIONAL STANDARDS

## THE WORLD OF SOLARLUX



## WHAT DOES SOLARLUX STAND FOR?

- · Family-owned company
- · Certified in a cordance with ISO 9001
- · In-house Research and Development division
- · 900 employees worldwide
- · Successful projects in over 60 different countries
- · Community outreach, sense of responsibility for people and nature



## **PRODUCTION**

- · 55,000 m² production site in north-west Germany
- · State-of-the-art manufacturing machinery
- · In-house painting line and powder-coating plant
- · Sustainable and energy-efficie t
- · Certified in a cordance with environmental standard ISO 14001



## SOLARLUX PRODUCTS

- · Made in Germany
- · CE-approved
- · Certified and independe tly tested
- · Compliant with the strictest quality standards
- · Custom products made to order
- · Winner of national and international design awards
- Wood surface in furniture quality with the option of receiving a 10-year guarantee ("RSG")
- Aluminium premium coater in accordance with GSB guidelines (GSB quality seal)



## SOLARLUX SERVICE

- · Top-class consultation
- · Everything from a single source
- Tidy assembly
- Private and public building projects handled professionally
- Maintenance and service agreements that extend beyond project completion





