ION-LOCK-TECHNOLOGY

sikkens
WOOD COATINGS

MARKET LEADERS IN THE ISOLATION OF TIMBER EXTRACTIVES

The new standard for opaque and translucent coatings: The new binder structure with Ion-Lock-Technology offers safe and environmentally friendly protection against the bleeding of timber extractives, particularly in oak!

Passion for wood

CETOL® WM 675
CETOL® WM 680

AkzoNobel

MID COAT
WITH ION POWER

ION-LOCK-TECHNOLOGY EFFECTIVELY MINIMISES DISCOLOURATIONS

Influences of the appearance of translucent or opaque coated wooden surfaces are a well-known problem due to the migration of timber extractives. They can appear immediately after coating or only after time (ranging from months till years). They are significantly reduced with the Ion-Lock-Technology by Sikkens Wood Coatings so that your customers are completely satisfied with their wooden windows.

At a glance:

- **Effective protection against timber extractive bleed-through, especially for oak**
- **Good pore wetting and pore-filling increases outdoor durability of the whole coating system**
- **Environmentally safe, sustainable product without any heavy metals**
- **Application on most leaf and pine woods**

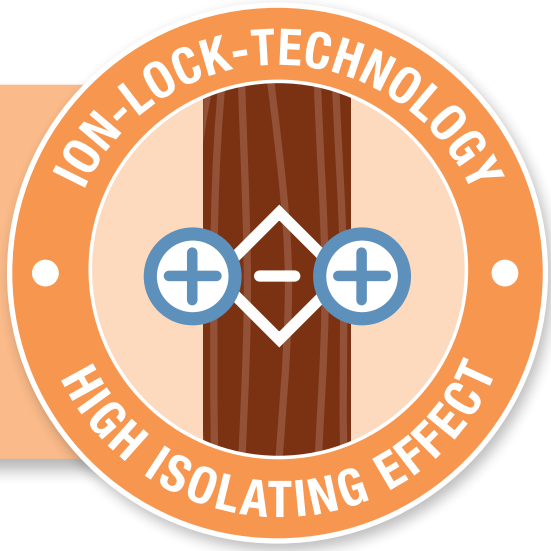
The new Sikkens Wood Coatings Ion-Lock-Technology (ILT) changes the game by isolating timber extractives in opaque and translucent coatings. The new binder structure CETOL® WM 675 and CETOL® WM 680 offers protection against discolourations of the wood surface. Also, the innovative mid coats increase the weather resistance of the entire coating system thanks to good pore wetting and filling. CETOL® WM 675 and CETOL® WM 680 can be used on leaf and pine woods.

Opposites attract
The high isolating effect of the Ion-Lock-Technology, patented by Sikkens Wood Coatings, uses objects of mostly negatively (-) charged wooden extractives and positively (+) charged objects within the binder. Dyes are drawn to the ion ends and are thus permanently bound and neutralized within the coating layer. This can reduce or even prevent wooden extractive bleed considerably in many cases. This is particularly the case for oak.

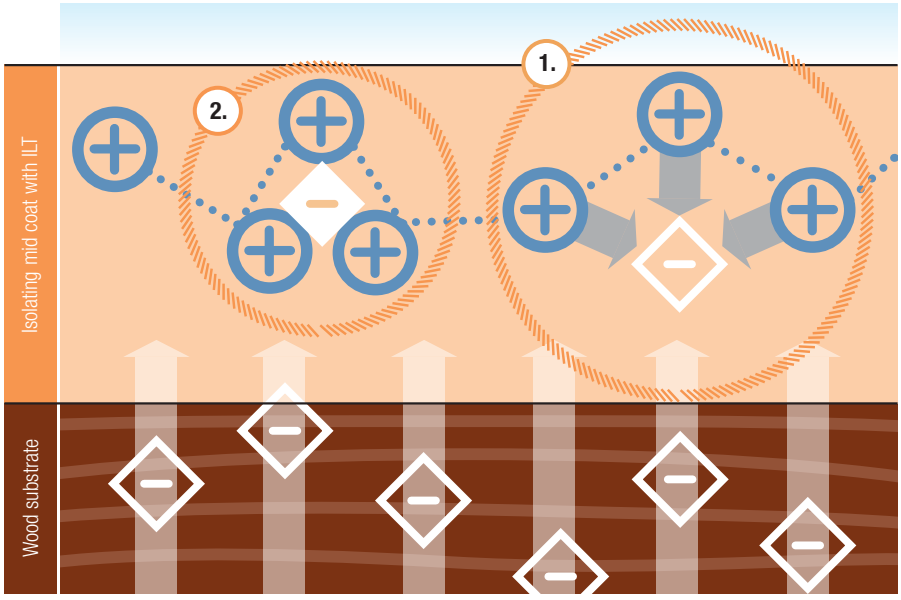
Patent registration

A breakthrough in the isolation of timber extractives has been achieved with Ion-Lock-Technology. Sikkens Wood Coatings, therefore, registered the innovative binder structure for patenting with the European Patent Organisation.

Patent number: EP09179692



When building its new headquarters, the European Investment Bank, based in Luxembourg, brought ecological factors to the fore right from the start. That's why Schindler Fenster + Fassaden GmbH chose the Sikkens Wood Coatings brand for the coating of the windows and facade elements made from wood.



High isolation power with no heavy metals

1. Attractive force:
Traditional binder structures cannot completely bind the liberated timber extractives within the isolation layer. ILT uses an electrochemical process to bind the ion groups in the liberated timber extractives within the film, thus preventing a bleeding through to the surface.

2. Fixation:
The timber extractives are permanently bound during fixation.

- Various negatively charged timber extractives
- Binder with positive ion groups
- Positively charged objects of the binder

Environmentally friendly and sustainable: Conventional isolation products are based on the use of metallic compounds, particularly zinc compounds. In contrast, CETOL® WM 675 and CETOL® WM 680 forgoes the use of heavy metals and therefore makes an important contribution to a better environment.

Pore-filling and pore wetting

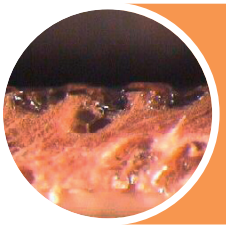
CETOL® WM 675 and CETOL® WM 680 have good pore-filling and pore wetting. This was confirmed by an analysis of four paint systems applied to Meranti.

The results:

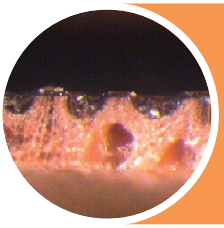
Under the microscope you can see that with a single coat of CETOL® WM 675 (system A) the pores are already better filled than with conventional mid coats (systems C and D).

However, for the deep-pored Meranti a double mid coat layer with CETOL® WM 675 (dipping or flow coating) is technically preferable. System B forms the best pre-treatment for the application of the top coat.

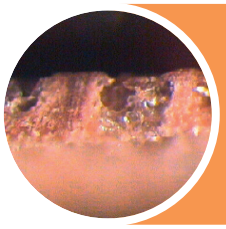
Even though conventional mid coats have moderately pore-filling properties throughout, the comparison with systems C and D show the superiority of CETOL® WM 675.



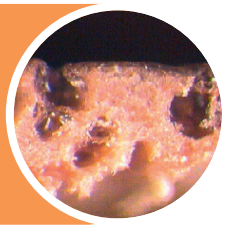
System A:
Primer with CETOL® WP 560
and **mid coat** with
CETOL® WM 675



System B:
Primer with CETOL® WP 560
and double **mid coats**
with CETOL® WM 675



Systems C and D:
Primer with CETOL® WP 560
and a conventional **mid coat**



Without Ion-Lock-Technology
Oak without the use of Ion-Lock-Technology.

With Ion-Lock-Technology
Oak with the use of Ion-Lock-Technology.

For the highest expectations
A consistent quality chain forms the prerequisite for fulfilling the LONGLIFE quality criteria. It begins with the choice of wood, continues with state-of-the-art construction and production and ranges from coating to transportation and installation.

The ILT products are the optimum mid coats for redeeming the LONGLIFE quality promise. With LONGLIFE you offer your customers across Europe quality wooden windows and doors as well as the security and comfort of a premium coating.

Technical Data

CETOL® WM 675

Highly transparent mid coat for the isolation of timber extractives for dimensionally stable and semi-dimensionally stable wooden components

Type of binder: Special acrylic copolymer with Ion-Lock-Technology (ILT)
Application: Dipping, flow coating

Product characteristics

- Very good isolation of wood extractives
- Fast drying
- Good pore wetting
- Good pore-filling
- No heavy metals

Colour shade

Colourless

Pack sizes

20 litre/120 litre

CETOL® WM 680

Highly transparent mid coat for the isolation of timber extractives for dimensionally stable and semi-dimensionally stable wooden components

Type of binder: Special acrylic copolymer with Ion-Lock-Technology (ILT)
Application: Spraying, brushing (only for semi stable components)

Product characteristics

- Very good isolation of wood extractives
- Fast drying
- Good pore wetting
- Good pore-filling
- No heavy metals

Colour shade

Colourless

Pack size

20 litres

The optimum translucent coating structure for porous timber species (leaf woods)

Primer: CETOL® WP 566
Mid coat: CETOL® WM 675 or CETOL® WM 680 (Ion-Lock-Technology)
Top coat: CETOL® WF 952 or CETOL® WF 957 (Duraflex-Technology)

The isolating and pore-filling properties of the Ion-Lock-Technology in combination with the weather resistant properties of the Duraflex-Technology as a top coat guarantee a structure of the highest quality!

Our technical data sheets and safety data sheets can be downloaded at: **www.sikkens-wood-coatings.com**

sikkens
WOOD COATINGS

Passion for wood

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