



Architectural & Construction

Coating resins for **Interior & exterior wood**



Beautifying and protecting frames, façades, and more

From window and door frames to façades, decking, and fences, the right paint or coating can make a big difference to the appearance and functionality of interior and exterior wood. And the right surface preparation is equally important to ensuring that these coatings work effectively.

We offer a wide range of coating solutions for interior and exterior wood applications. These include resins for primers that prepare the wood for its topcoat by isolating knots and preventing tannins from bleeding. And we also offer resins for topcoats that beautify and protect the wood.

Paints for window and door frames to façades, decking, and fences



For every stage of the wood coating process

From primer to topcoat, in a range of finishes

Primers

The choice of primer can have a significant impact on the final properties and finish of a wood coating. Stain locking, adhesion, and outdoor durability are valuable properties, and our portfolio of acrylic primers helps to provide these characteristics.



Selected portfolio offerings: Wood - Primers for indoor applications

NAME	DESCRIPTION	SOLIDS (%)	MFFT (°C)	BENEFITS/ MAIN PROPERTIES
PRIMERS FOR INDOOR APPLICATIONS				
NeoCryl® XK-30	Cationic acrylic copolymer	42	30	Stain-locking primer for hard woods; prevents leaching of tannins without the need for zinc oxide.
NeoCryl® XK-170	Acrylic styrene copolymer	45	33	Good wet adhesion, including on previously painted surfaces such as aged alkyd; hardness and outdoor durability
NeoCryl® XK-298	Self crosslinking acrylic copolymer	44	7	Broad adhesion to a range of substrates; flexibility and outdoor durability. Partly bio-based version also available as NeoCryl® CQ XK-298
NeoCryl® HP-1000	Acrylic copolymer	44.5	<5	Provides adhesion to a wide range of surfaces that are difficult to stick to, including various plastics and glossy surfaces.



Selected portfolio offerings: Wood - Topcoats for indoor applications

NAME	DESCRIPTION	SOLIDS (%)	MFFT (°C)	BENEFITS/ MAIN PROPERTIES
TOPCOATS FOR INDOOR APPLICATIONS				
NeoCryl® XK-12	Self crosslinking acrylic copolymer	45	29	Universal acrylic giving hardness and resistances. Suitable for blending with a range of acrylic and urethane dispersions.
NeoPac™ PU-485	Aliphatic polyurethane-alkyd	42	N/A*	Film hardness and fast drying, scratch and water resistance. Good open time and flow out.
NeoPac™ OX87-1 40W	Amine free aliphatic polyurethane-alkyd	40	N/A	High hardness development with scratch & mechanical properties.
Decovery® SP-8030	Amine free aliphatic polyurethane-alkyd	42	N/A	Film hardness and fast drying, scratch and water resistance. Good open time and flow out. Low odor on application and drying.
NeoRez® R-2005	Urethane-acrylic	35	10	Provides hard, chemical and abrasion resistance coatings with flexibility. Suitable as a blend partner with a range of dispersions.
NeoPac™ E-225	Urethane-acrylic	35	50	Chemical resistance, hardness, black heel mark resistance. Neutral wood coloration.

*oxidative drying

Which interior wood coating resin technology is right for me?

- Acrylics are the market-standard technology for architectural resins, and offer excellent resistance properties.
- Urethane acrylics help to boost resistance and hardness performance, and make great blend partners for use in a range of dispersions.
- Urethane alkyds deliver an attractive gloss, as well as offering long open times for easy workability.

Topcoats

Our topcoats are designed to beautify and protect wood. We offer resins tailored to both interior and exterior applications, with several finishes possible:

- **Oils and clear varnishes**, which produce a thin film that clearly shows the structure of the wood. The color of the finish is determined by the color and age of the wood itself.
- **Wood stains** with a low pigment content, which produce a thin film that clearly shows the structure of the wood. The color of the finish is determined by the color of the stain and the color of the wood.
- **Wood paints** that hide the wood grain and can be pigmented to any desired color.

For interior applications

Achieve optimal resistance to everyday wear and tear with our resins for interior wood topcoats – including acrylics, urethane acrylics, and polyurethane alkyds. The resins in this portfolio deliver strong resistance to stains, scratches, chemicals, water, and abrasion, for long-lasting finishes in high-touch areas. At the same time, they offer good flow and leveling for smooth application, including for DIY.

We've tested the hardness and chemical and mechanical resistance of these resins.



Selected portfolio offerings:
Wood - For exterior applications

NAME	DESCRIPTION	SOLIDS (%)	MFFT (°C)	BENEFITS/ MAIN PROPERTIES
EXTERIOR APPLICATIONS				
NeoCryl® XK-188	Acrylic styrene copolymer	45	6	Wet adhesion to wood and previously painted surfaces including aged alkyd, high gloss potential, water resistance with low water vapor permeability.
NeoCryl® XK-190	Acrylic copolymer	45	<0	Wet adhesion to wood and previously painted surfaces including aged alkyd, flexible and with good outdoor durability.
NeoCryl® XK-231	Self crosslinking acrylic copolymer	42	20	Outdoor durability with good hardness.
NeoCryl® XK-237	Self crosslinking acrylic copolymer	44	8	Early water resistance and low water uptake with outdoor durability.
NeoCryl® XK-298	Self crosslinking acrylic copolymer	44	7	Elasticity, blocking resistance, good transparency with outdoor durability.
Decovery® SP 7450	Self crosslinking acrylic copolymer	44	10	Elasticity, blocking resistance, good transparency with outdoor durability. Biobased content is 39%, ASTM D6866 C14 method.
Decovery® SP 8310	Acrylic copolymer	47	<5	Water resistance, flexibility, outdoor durability. Biobased content is 37%, ASTM D6866 C14 method.
ALKYDS - WE ARE REFRESHING OUR PORTFOLIO PLEASE CONTACT US TO DISCUSS YOUR NEEDS				
NeoPac™ PU-485	Aliphatic polyurethane-alkyd	42	N/A	Film hardness and fast drying, scratch and water resistance. Good open time and flow out.
NeoPac™ OX87-1 40W	Amine free aliphatic polyurethane-alkyd	40	N/A	High hardness development with scratch & mechanical properties.
Decovery® SP-8030 XP	Amine free aliphatic polyurethane-alkyd	42	N/A	Film hardness and fast drying, scratch and water resistance. Good open time and flow out. Low odor on application and drying.

For exterior applications

For exterior wood coatings, our outdoor-durable acrylic resins provide the properties needed to withstand varying weather conditions. These include hardness, UV resistance, and water resistance, as well as anti-cracking properties such as long-term adhesion and elasticity to protect against changing temperatures.

We've tested these properties outside at our own production sites – in some cases, in combination with other coating elements.



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¹Please see the "Guidance on Use of Covestro Products in a Medical Application" document.
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