



Architectural & Construction

# Coating resins for **Wood flooring**



# Delivering beautiful flooring that stands the test of time

Whether it's parquet or industrial flooring, coatings for wood flooring must be able to withstand mechanical strain from heavy foot traffic and friction from furniture – while still delivering premium-level aesthetics. Tightening regulations around VOC emissions create an additional challenge.

At Covestro, we have a long history of developing coating solutions for wood flooring. Thanks to our team of in-house experts and our advanced range of technologies, our solutions cover a wide range of wood flooring applications – including primers, topcoats, and 2k systems.

Coatings for wood flooring



# For every stage of your floor coating process

Taking you from primer to topcoat, in 1k and 2k systems

## Primers

The choice of primer can have a significant impact on the final color and finish of a wood floor coating. Besides these properties, fast drying and sandability are also valuable properties.

Our portfolio of acrylic primers helps to provide these characteristics, with various choices for differently colored finishes.



## Selected portfolio offerings: Primers for walls

NAME	DESCRIPTION	SOLIDS (%)	MFFT (°C)	BENEFITS/ MAIN PROPERTIES
PRIMERS				
NeoCryl® XK-12	Self-cross-linking acrylic	45	29	Sandability, neutral wood coloration, compatible with a wide range of dispersions.
NeoCryl® XK-68	Hydroxyl functional acrylic styrene	47.5	35	Warm reddish wood coloration on oak.
NeoCryl® XK - 30	Cationic acrylic	42	30	Stain locking for high tannin content woods.

### Acrylic and hybrid topcoats for 1k systems

Acrylic topcoats are well suited to professional and DIY wood flooring applications with relatively light use, such as in homes.

We have tested our acrylic resins' resistance to abrasion, diamond-tip scratches, black heel marks, and coffee, tea, wine, and ethanol stains.



### Selected portfolio offerings: Acrylic and hybrid topcoats for 1k systems

NAME	DESCRIPTION	SOLIDS (%)	MFFT (°C)	BENEFITS/ MAIN PROPERTIES
NeoCryl® XK-12	Self-crosslinking acrylic	45	29	Universal product, compatible as a blend partner with a range of dispersions.
NeoCryl® XK-14	Self-crosslinking acrylic	40	33	Water and chemical resistance; good.
NeoPac™ E-108	Aromatic urethane acrylic copolymer dispersion	32.0-34.0	<4	Tough clear films with water, chemical, and abrasion resistance; good flow out with warm wood coloration.
NeoPac™ E-180	Aromatic urethane acrylic copolymer dispersion	32.0-34.0	19	Chemical, abrasion, and scratch resistance; warm wood coloration.
NeoCryl® XK-298	Self-crosslinking acrylic copolymer	44	7	Elasticity; blocking resistance; good transparency. <b>Partly bio-based version also available as NeoCryl® CQ XK-298.</b>





## Selected portfolio offerings: Urethane-based topcoats and hardeners for 2k-based systems

NAME	DESCRIPTION	SOLIDS (%)	MFFT (°C)	BENEFITS/ MAIN PROPERTIES
NeoRez® R-2170	Self-crosslinking aliphatic urethane dispersion	40	58	High clarity and hardness; abrasion and chemical resistance; good mechanical properties, including black heel mark scuff resistance.
NeoRez® R-2180	Self-crosslinking aliphatic urethane dispersion	35	30	High clarity and hardness; abrasion and chemical resistance; good mechanical properties, including black heel mark scuff resistance.
Decovery® SP-2022 XP	Self-crosslinking inherently matt urethane	35	<5	Matt, neutral-colored finish; chemical and black heel/scuff resistance; non-polishing. 35% bio-based content (ASTM D6866 C14 method).
Decovery® CQ 2110	Self-crosslinking partly bio-based urethane	35	18	High clarity and hardness; abrasion and chemical resistance; good mechanical properties, including black heel mark scuff resistance. 36% bio-based content (ASTM D6866 C14 method).
Bayhydrol® UH 2593	Aliphatic polyurethane dispersion modified with fatty acids	34	N/A	Mechanical properties including black heel mark resistance, high hardness development, and strong drying.
NeoPac™ OX87-1 40W	Aliphatic polyurethane dispersion modified with fatty acids	40	N/A	Wood wetting with warm wood coloration; hardness development; scratch resistance; fast drying.
NeoRez® R-9035	Aliphatic polyurethane dispersion modified with fatty acids	33-35	N/A	Wood wetting with warm wood coloration; hardness development giving mechanical properties.

NAME	DESCRIPTION	SOLIDS (%)
<b>HARDENERS FOR 2K TOPCOATS</b>		
Bayhydrol® ultra 305	Water-dispersible polyisocyanate	100%
Bayhydrol® ultra 2700	Water-dispersible polyisocyanate	65%
Bayhydrol® ultra 2858	Water-dispersible polyisocyanate	70%
Bayhydrol® CQ ultra 701-90	Water-dispersible polyisocyanate	90%

### Urethane-based topcoats and hardeners for 2k-based systems

For professional floor-coating applications that need particularly good long-term resistance, urethane-based topcoats are a strong choice. And for the most demanding applications, a 2k system with a hardener provides excellent resistance and protection.

Our selection of urethane-based topcoats and polyisocyanate hardeners is below, including two partly bio-based options. We have tested their resistance to sandpaper abrasion, diamond-tip scratches, black heel marks, and coffee, tea, wine, and ethanol stains.



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