

# Covestro decorative resin portfolio.



"Let Covestro be your innovation partner; together, we can drive sustainable growth – now and in the future!"



## Welcome to our ever growing decorative resin portfolio.

At Covestro Coating Resins, we have an industry-beating family of advanced decorative resins spanning many technologies, all designed for blending into modern paints. Our solutions cover a wide variety of substrates, from interior and exterior wall paints to trim paints, floor coatings, metal coatings, furniture lacquers, and primers of many varieties. But it doesn't stop there – whatever the requirements, our resins will help you develop innovative, futureproof solutions to meet your customers' every need.

Being a front-runner in more sustainable resin technology, our solutions not only make homes look beautiful, they also make them safer. They also help protect the environment and are more friendly for users. All while enhancing technical properties and ease of use for the applicator.



## Uradil™

## Waterborne Alkyds

Our **Uradil<sup>TM</sup>** portfolio of waterborne alkyds includes resins for primers, stains, and topcoats, including corrosion-resistant primers. These resins are suitable for wood and metal interior and exterior applications. They deliver excellent penetration, substrate wetting, adhesion, drying speeds, and outdoor durability.

#### Uradil™

### Waterborne Alkyds

Product name	Description	Benefits	Solids	Oil length	Oil type	Application
Uradil™ AZ-524 Z-60	Amine and cosolvent free	Penetration, substrate wetting, adhesion.	60	73	Linseed	
Uradil™ AZ-515 Z-60	long oil alkyd.	Penetration, substrate wetting, adhesion, outdoor durability.	60	74		Primers, Transparent & opaque stains for both
Uradil™ AZ-516 Z-60	Long oil alkyd resin emulsion.	Penetration, substrate wetting, adhesion, outdoor durability, drying speed.	60	64	Tall	interior and exterior.
Uradil™ AZ-543	Water-soluble modified linseed oil.	Deep penetration, wetting properties, water dilutable.	100	58	Linseed	Wood impregnation.
Uradil™ AZ-554 Z-50	Medium oil alkyd	Drying speed, gloss, yellowing resistant, flow coat, sprayable, exterior durability.	50	Approx. 40	Soya bean	Interior / exterior primers and topcoats for wood and metals including Corrosion resistant primers.
Uradil™ AZ-562 Z-50	emulsion.	Drying speed, blocking resistant, gloss level, yellowing resistant, exterior durability.	50	Approx. 40		
Uradil™ AZ-565	Medium oil alkyd emulsion (xylene free).	Drying speed, gloss level, yellowing resistant, exterior durability.	50	Approx. 40	Soya bean	Interior / exterior primers and topcoats for metals, walls and wood.
Uradil™ AZ-760	Medium oil alkyd emulsion.	Levelling, drying speed, gloss, film hardness, blocking, yellowing resistance, water resistance, exterior durability.	53	Approx. 40	Soya bean	Interior / exterior primers and topcoats for wood and metals including corrosion resistant primers.
Uradil™ AZ-765	Medium oil alkyd	Xylene free version of AZ-760.	53	Approx. 40	Soya bean	Interior / exterior primers
Uradil™ AZ-785 Z-52	emulsion (xylene free).	Levelling, drying speed, adhesion, high gloss, yellowing, water resistance.	52	Approx. 40		and topcoats for wood and metals - Corrosion resistant primers.



## **Neorez**®

#### Urethane

**Neorez®** urethane resins are ideal for wood and parquet lacquers and varnishes, as well as other flooring applications. Many of them are self-crosslinking, and can be used in 1K or 2K applications for parquet, concrete, cork, and PVC flooring. Their benefits include good flow, non-yellowing, and excellent resistance to abrasion, chemicals, and black heel marks. This portfolio includes **Neorez® R-2190**, a low-emission solution with low solvent content and near-zero VOCs, and **Neorez® R-2005**, a solvent-free resin free of NMP, APEOs, heavy metal, plasticizers, and TEA. **Neorez® R-2005** is also suitable for metal and plastic coatings and adhesives for floor coatings.

#### Neorez®

#### Urethane

Product name	Description	Benefits	Solids (%)	MFFT (°C)	Application
Neorez® R-2005	Solvent-free urethane dispersion.	Hard, chemical and abrasion resistance, multi- surface adhesion, humidity resistant, NMP, APEO, Heavy metal, plasticizer and TEA free.	35	10	Wood and parquet lacquers, metal and plastic coatings, wear resistance floor polished and laminating adhesives. Blend partner for acrylics.
Neorez® R-2170	Self-crosslinking aliphatic urethane dispersion.	Good flow, non yellowing, high clarity, abrasion resistant, excellent chemical resistance, black heel mark and scuff resistance.	35	58	Parquet varnish (1 & 2K) and cork lacquers and concrete flooring.
Neorez® R-2180	Self-crosslinking aliphatic urethane dispersion.	Good flow out and defoaming, non-yellowing / good clarity, good toughness / hard balance, high abrasion resistance, excellent chemical, BHMR and scuff resistance, resistant to scratching, no color change on oak, no color change at lapping areas.	35	30	1 & 2k finished for parquet, concrete, cork and PVC flooring.
Neorez® R-2190	Self-cross- linking aliphatic polyurethane.	Low solvent demand, near zero VOC, low emission, neutral wood wetting, good toughness, excellent abrasion resistance, chemical Black heel marking and scuff resistance.	35	<5	1 & 2k finished for parquet, concrete, cork and PVC flooring.



## **Neopac**<sup>TM</sup>

## Urethane-alkyds-acrylics hybrids & tribrids

Hybrid **Neopac™ PU and OX** resins provide excellent transparency, film hardness, scratch and water resistance. **Neopac™ PU** resins deliver particularly good drying speeds, while **Neopac™ OX** resins offer excellent stain resistance and wood wetting. Modified with aliphatic polyurethanes or fatty acids, this portfolio is especially suitable for decorative interior and exterior applications on wood and metal, including stains, trim paints, and joinery applications.

## Neopac™ PU & Neopac™ OX

Urethane-Alkyd Hybrids

Product name	Description	Benefits	Solids (%)	Application
Neopac™ PU-485	Alkyd dispersion modified with aliphatic polyurethane.	Drying speed, transparency, film hardness, scratch resistance, water resistance.	42	Decorative interior & exterior stains and trim paints for wood and metal.
Neopac™ OX47-1 40W	Alkyd dispersion modified with aliphatic polyurethane.	Stain resistance, transparency, film hardness, scratch resistance, water resistance.	40	Decorative stains and paints for wood & metal and joinery applications.
Neopac™ OX87-1 40W	Aliphatic polyurethane dispersion modified with fatty acids.	Higher hardness than OX47-1 40W.	40	Decorative stains paints for metal and wood, joinery and flooring applications.

### **Neopac™ E**

Acrylic-Alkyd Hybrids

Product name	Description	Benefits	Solids (%)	MFFT (°C)	Application
Neopac™ E-108	Aromatic urethane acrylic copolymer dispersion.	Tough, clear film, high water and ethanol resistance, chemical and abrasion resistance, good flow out.	32.0–34.0	<4	Parquet and wood lacquers.
Neopac™ E-225	Self-crosslinking aliphatic urethane acrylic copolymer.	Chemical resistance, black heel mark resistance, non yellowing.	34.5 – 36.5	50	Parquet lacquers and decorative paints.
Neopac™ E-128	Fatty acid modified acrylic polyurethane dispersion.	Good flow and open time, low yellowing, good early blocking, good water resistance.	36.0 – 38.0	<5	Wood stains & decorative topcoats.
Neopac™ E-129	Urethane acrylic copolymer dispersion.	Hardness, wood wetting, hand cream resistance, chemical and solvent resistance, imprint & block resistance.	33.0 – 35.0	60	Transparent & pigmented wood coatings and concrete floor coatings.
Neopac™ E-160	Urethane acrylic copolymer dispersion.	Hand cream resistance, stain resistance, chemical & solvent resistance.	33.0 – 35.0	29	Clear and pigmented wood coatings.
Neopac™ E-180	Aromatic urethane acrylic copolymer dispersion.	Good flow, tough, excellent chemical resistance, excellent abrasion resistance, scratch resistance.	32.0 – 34.0	19	Parquet lacquers and floor coatings.
Neopac™ E-240	Aliphatic urethane / acrylic copolymer dispersion.	Good elasticity, good blocking resistance, low water absorption, good water resistance, good outdoor durability.	42 – 44	<5	Clear and transparent stains for exterior wood.
Neopac™ E-510	Sunlight curable urethane acrylic.	Outdoor durability, UV curing, good workability, fast drying.	42 - 44	7	Exterior decorative wood coatings an oils.



## **Decovery**®

## Biobased polymers

Containing up to 52% bio-based content, our eco-friendly **Decovery®** resins deliver outstanding performance in interior and exterior wall and floor coatings, while safeguarding the health of both people and planet. With low minimum filmforming temperatures, they offer a range of key benefits. These include the selfmatting properties of **Decovery® SP-2022**, which eliminates the need for matting agents, the fast drying and alkaline resistance of **Decovery® SP-7450**, the water resistance and broad adhesion of **Decovery® SP-8310 XP**, the scrub resistance of **Decovery® SP-8406 XP** – and much more.

## Decovery®

### Biobased polymers

Product name	Description	Benefits	Solids (%)	MFFT (°C)	Biobased % / C14	Application
Decovery® SP-2022	Self-crosslinking inherently matt aliphatic urethane.	Matt appearance, neutral wood coloration, excellent chemical, black heel and scuff resistance, non polishing.	34 - 36	<5	35%	Wood and seamless flooring, decorative coatings.
Decovery® SP-7450	Acrylic copolymer.	Fast drying, fast blocking resistance, good alkaline resistance.	44	10	39%	Exterior wood.
Decovery® SP-8310 XP	Pure acrylic.	Excellent water resistance, broad adhesion profile, good blocking.	47	5	37%	Interior & exterior coatings including façade and trim.
Decovery® SP-8406 XP	Pure acrylic.	Good scrubs resistance.	47	0	52%	Interior & exterior wall paints.
Decovery® SP-8030	Amine free fatty acid modified aliphatic based polyurethane dispersion.	Drying speed, low odor, transparency, film hardness, scratch resistance, water resistance.	42	-	43%	Decorative interior & exterior stains and paints for wood and metal.



## **Neocryl®**

## Acrylic & Acrylic copolymers

Our **Neocryl®** family of acrylics and acrylic copolymers includes a wide range of resins, with applications ranging from wood primers to thixotropic paints:

#### **Primers**

**Neocryl®** primers include clear and pigmented resins for interior and exterior applications, particularly wood. Their beneficial properties include bleeding resistance and stain blocking, including for nicotine. **Neocryl® XK-320** is APEO-free, while **Neocryl® HP-1000** delivers strong multi-surface resistance with low VOCs, making it ideal for multi-surface decorative primers.

#### **Metal**

These resins are suitable for a wide range of metal applications, including primers, coatings, and direct-to-metal. Their typical properties include corrosion resistance and strong adhesion to various metals. This portfolio includes **Haloflex 202**, a non-flammable resin that can be used for fire-retardant coatings, and **Neocryl® XK-82**, a resin ideal for anti-corrosive systems that's also suitable for wood and plastic coatings.

#### Wood

There are a wide range of **Neocryl®** resins for wood applications. These applications range from deck stains and flooring coatings to high-gloss primers and decorative paints. Some of the beneficial properties of these resins include good wet adhesion, water-resistance, wood wetting, high gloss, outdoor durability, and toughness.

#### **Thixotropic coatings**

Our thixotropic coating resins can be used to produce flowable thixotropic paints that quickly set to a gel and don't drip. The benefits of these acrylic emulsion resins include good blocking, wet adhesion on alkyds, hardness, and imprint resistance. This portfolio includes a zero-VOC thixotropic solution with good water resistance, **Neocryl® TX-203**.

#### **OH-modified acrylics**

Containing 2.5-5% OH content and 30-47.5% solid content, these **Neocryl®** resins can be used for two-component parquet lacquers and other flooring applications, as well as two-component anti-graffiti coatings and acid-curing wood coatings. Their properties include excellent chemical and solvent resistance, high gloss, and toughness.

#### Wall (interior and exterior)

Our **Neocryl®** resins for wall coating applications include a universal binder for multi-purpose applications, a resin suitable for interior and exterior coatings (particularly wet rooms), and an exterior coating resin for façade and wood. Some of their beneficial properties include good scrub and stain resistance, low water uptake, wet adhesion, exterior durability, and flexibility.

## Neocryl®

### Acrylic & Acrylic copolymers

#### **Primers**

Product name	Description	Benefits	Solids (%)	MFFT (°C)	Application
Neocryl® XK-30	Cationic Acrylic.	Stain locking including nicotine and common stains, good stain locking on tropical woods without need for Zinc Oxide.	42.5	30	Clear and pigmented primers.
Neocryl® XK-36	Alkaline soluble acrylic copolymer.	Stain and bleeding resistant, tough film.	40	17	Stain and bleeding resistant primers for interior and exterior usage. Clear primers and sealers for concrete.
Neocryl® XK-37	Acrylic emulsion.	Good stain blocking on tropical wood, good nicotine isolation properties.	40	12	Pigmented blocking primers for wood.
Neocryl® XK-320	Acrylic Styrene.	APEO free, good adhesion to alkyd and wood, low water absorption.	44	22	Interior and exterior wood primers.
Neocryl® XK-350	Acrylic copolymer.	Good knot resistance, good stain locking on tropical wood.	42.5	36	Interior & Exterior pigment primers.
Neocryl® HP-1000	Acrylic.	Excellent multi-surface resistance, quick drying, low VOC.	44.5	<5	Multi-surface decorative primers.

#### Metal

Product name	Description	Benefits	Solids (%)	MFFT (°C)	Application
Haloflex® 202	Vinyl Acrylic.	Good barrier properties to oxygen, carbon dioxide and water vapor, excellent salt spray, non-flammable.	60	12	Primers for metal, fire retardant coatings and wet room systems.
Neocryl® XK-82	Acrylic Styrene.	Corrosion resistance, multi-surface adhesion, clear hard film.	40	44	Anti-corrosive systems, metal, wood and plastic coatings, blend partner for urethanes and alkyds.
Neocryl® XK-85	Acrylic Styrene.	Adhesion to various metals, corrosion resistant. Good gloss.	40	29	Clear coats to metal, primers. Blend partners for polyurethanes to improve mechanical properties.
Neocryl® XK-117	Acrylic Styrene.	Good adhesion to various metals, excellent corrosion resistance, high film build. Good salt spray.	50	28	Direct to metal applications.

#### Wood

Product name	Description	Benefits	Solids (%)	MFFT (°C)	Application
Neocryl® XK-89	Acrylic-hybrid emulsion.	Excellent controlled adhesion, good wet adhesion, low grain raising.	44	<4	Exterior wood stains & deck stains.
Neocryl® XK-99	Acrylic emulsion.	Excellent early water resistance, alkaline resistance, good wet adhesion, elastic up to PVC 30.	44	4	Clear transparent and pigmented topcoats for decorative wood.
Neocryl® XK-12	Self-cross linking modified acrylic.	Water, chemical, alcohol and wet heat resistant, very block resistant, high gloss, transparent and good pore wetting, no yellowing in QUV, outdoor durable, scratch resistant, good sand ability.	45	29	Wood finishes, blend partner for urethanes in parquet coatings.
Neocryl® XK-112	Self crosslinking acrylic copolymer.	Water resistance, alcohol resistance, wet heat resistance, scratch resistant, low odor.	45	29	Wood finishes – primer and topcoat.
Neocryl® XK-14	Self crosslinking copolymer.	Water alcohol and detergent resistant, wood wetting, stain resistant.	40	33	Wood coating, parquet flooring.
Neocryl® XK-15	Self crosslinking acrylic copolymer.	Wood wetting, hardness, hand cream resistant, fast drying, chemical resistant.	45	31	Wood coatings.
Neocryl® XK-170	Acrylic styrene copolymer.	Good outdoor durability, high gloss and resistant to blocking, wet adhesion to range of substrates.	45	33	High gloss interior & exterior, primers. Parquet and concrete flooring.
Neocryl® XK-175	Acrylic copolymer.	Hard flexible, outdoor durable, good gloss, water resistant, wet adhesion to plastics and metal.	45	25	High gloss interior & exterior wood, metal coatings, concrete.
Neocryl® XK-176	Acrylic copolymer.	Hard flexible, outdoor durable, good gloss, water resistant, wet adhesion to plastics and metal.	45	27	High gloss interior & exterior wood, metal coatings, concrete.
Neocryl® XK-190	Modified acrylic copolymer.	Tough & hard, excellent outdoor durability, good wet adhesion to substrates especially aged alkyd.	45	<0	High Gloss interior & Exterior decorative paints and wood stains.
Neocryl® XK-205	Acrylic styrene copolymer.	Hard and abrasion resistant, adhesion to steel and other substrates, chemical resistant.	42	55	Metal topcoats, wood coatings including parquet flooring, blend with R-2005.
Neocryl® XK-230	Acrylic emulsion.	Excellent early water resistance, good early water resistance, good early blocking, good wet adhesion.	42	5	Clear and transparent topcoats.
Neocryl® XK-231	Self crosslinking acrylic copolymer.	Good blocking, non yellowing, good adhesion on PVC, good transparency.	42	20	Interior & Exterior wood coatings.
Neocryl® XK-237	Self crosslinking acrylic copolymer.	Good water resistance, low water absorption, good blocking.	44	8	Exterior wood.
Neocryl® XK-298	Self-crosslinking acrylic copolymer.	Excellent elasticity, good blocking resistance, good wet adhesion, low water absorption.	44	7	Clear, transparent & pigmented topcoats for wood.

#### Thixotropic coatings

Product name	Description	Benefits	Solids (%)	MFFT (°C)	Application
Neocryl® TX-200	Acrylic emulsion.	Good blocking. Wet adhesion to aged alkyd, good hardness, outdoor durability, non drip paints.	51	18	Thixotropic paints.
Neocryl® TX-203	Acrylic emulsion.	Good blocking, good wet adhesion on alkyd, water resistance.	45	0	Low VOC thixotropic.
Neocryl® TX-208	Acrylic emulsion.	High hardness, good blocking, high imprint resistance.	47	27	Thixotropic paints.

#### **OH modified Acrylics**

Product name	Description	Benefits	Solids (%)	MFFT (°C)	Application
Neocryl® XK-555	Hydroxyl containing acrylic emulsion.	Extremely good chemical resistance, good weathering resistance, very high gloss.	40	-	2K flooring applications.
Neocryl® XK-68	Hydroxyl containing acrylic styrene.	Tough, hard and glossy, chemical resistance, warm wood coloration.	47.5	35	Acid curing wood coatings.
Neocryl® XK-110	Hydroxyl functional acrylic copolymer.	High gloss and clarity, chemical and solvent resistant.	46.5	-	2K Parquet lacquers.
Neocryl® AF-10	Acrylic-fluro copolymer.	Very resistant against graffiti agents, very resistant to chemicals solvent and acids.	30	0	2K Anti-graffiti coatings.

#### Wall (interior / exterior)

Product name	Description	Benefits	Solids (%)	MFFT (°C)	Application
Neocryl® A-820	Pure Acrylic.	Good scrub & stain resistance, exterior durability, good water resistance.	44	<5	Universal binder for multi- purpose applications.
Neocryl <sup>®</sup> HP-4000	Acrylic copolymer.	Low water uptake, high moisture vapor permeability, outdoor durability, for applicatation add interior deco especially bathrooms and exterior coatings.	50	<5	Interior & exterior coatings.
Neocryl® XK-240	Acrylic.	Wet adhesion to wood and old paints, high flexibility and crack bridging.	52	<8	Exterior coatings for façade and wood.



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