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Pure performance

Water-based dispersions for interior furniture and floor coatings



www.basf.com/resins

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 **BASF**
We create chemistry



Table of contents

We create chemistry	04	Product overview	12
		Water-based acrylic emulsions and colloidal dispersions	12
Technology overview	06	Water-based self-crosslinking acrylic emulsions	14
Technical benefits Joncryl® emulsions and Luhydran® dispersions	07	OH-functional acrylic emulsions	16
Interior applications	08	Polyurethane dispersions and polyurethane acrylic hybrids	18
Furniture coatings	10	Resin solutions, grinding resins, waxes, and crosslinker solutions	20
Floor coatings	11	Water-emulsifiable and dilutable polyisocyanate crosslinkers	22
		Amino-resin crosslinkers	24
		Water-based UV resins	26



Performance meets sustainable development

As the world's leading chemical company, BASF is committed to providing high-performance water-based solutions for furniture and floor coatings. Looking at decades of experience in developing binders and additives, you can be sure to get the most out of your formulation. With our Sustainable Solution Steering method we have furthermore evaluated the value chain from cradle to grave considering industry- and region-specific views in our markets. After identifying key sustainability drivers, our binders and additives have been systematically reviewed. This approach allows us to assess the sustainability performance of each of our products in its specific application. We create chemistry that makes performance love sustainable solutions.

For the furniture and flooring industry, we identified – among other things – chemical and mechanical resistance, emission reduction, as well as durability to be the key drivers for more sustainable coating formulations. Our water-based Joncryl® and Luhydran® dispersions contribute substantially to these drivers along the value chain and have thus been classified as Sustainability Accelerators.

Let's take a joint look at your specific requirements and find out how we can further improve both your, as well as our, sustainability profile!

Learn more about BASF's commitment to driving sustainable solutions at: www.basf.com/sustainability

Choosing the right technology

Joncryl® emulsions and Luhydran® dispersions are two key product lines within BASF's comprehensive portfolio. They allow you to choose from a range of water-based technologies and can be formulated according to the desired application method: spraying, dipping, roller, and curtain coating, as well as manual applications such as brushing and rolling.

Joncryl® emulsions

Characterized by the use of a low molecular weight acid-functional resin as an emulsion polymer stabilizer, these products are specially suited for industrial wood applications. Let us know your specific application, so we can find a solution that fits your needs.

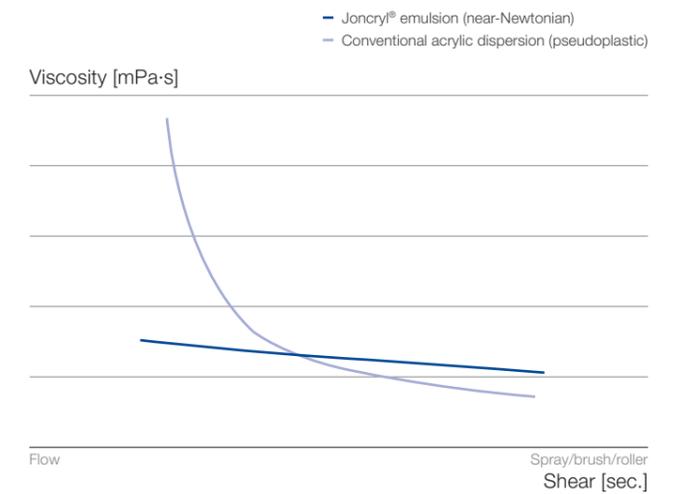
Luhydran® acrylic dispersions

These products have a long, reputable history of success. They are surfactant-based, self-crosslinking, or OH-functional and particularly suitable for interior wood applications of furniture foils and as co-binders in some exterior applications.

Features and benefits Joncryl®

Joncryl® features	Your benefits
Surfactant-free	Enhanced stability Low foaming at higher shear (pigment grinding directly into binder) Easy handling
Fine particle size	High clarity and gloss
Excellent morphology: high Tg – low MFT	Excellent (hot) block resistance Fast water release and film formation
Near-Newtonian flow behavior	Lower coalescent demand Fast drying
Self-crosslinking	Excellent water and chemical resistance Good wet adhesion

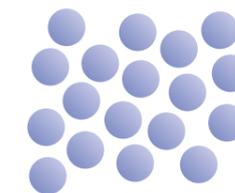
Rheology profile Joncryl®



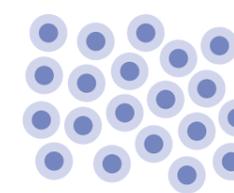
Features and benefits Luhydran®

Luhydran® features	Your benefits
Special monomer composition	Excellent filling properties "Anfeuerung" (warmth of wood) Special resistance properties (e.g., to plasticizers)
OH-functional or self-crosslinking	Water and chemical resistance Compatible with a broad range of hardeners and co-binders
Well-balanced morphology	Fast water release Good film formation

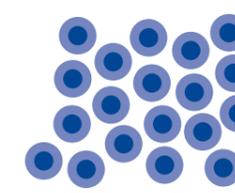
Particle morphologies Joncryl® and Luhydran®



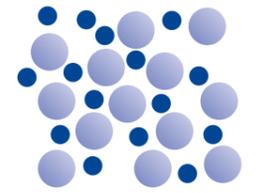
Homogeneous
Single-phase feed



Core shell (inverse)
Sequential multi-feed compositions



Gradient
Continuous change in feed composition



Mixtures
Physical blend of two dispersions (or potential secondary nucleation)



Interior applications with a focus on resistance and durability

The interior furniture and flooring wood market is very diverse. It encompasses furniture segments such as assembled contemporary furniture, cabinets and self-assembled flat-stock furniture for the home or office as well as antique furniture. The flooring segment includes parquet and solid wood, ranging from “factory-applied” industrial to “on-site” professional and DIY flooring. Depending on the final application, different coating properties are in focus.

Furniture coatings

Due to local preferences or national regulations, coating requirements, application methods, and substrates vary enormously from country to country. Thus, we offer individual support for your needs – with our water-based dispersions and system solutions that aim to match your targeted properties.

Floor coatings

No matter what you desire for your flooring application, we create coating raw material solutions that meet your needs in terms of cost and performance, and which are in line with the latest environmental regulations.

Furniture coatings – Sustainably preserve the beauty of wood

Aiming to support you with our water-based dispersion technologies means finding the best match of product properties – preserving the beauty of wooden furniture as well as the environment.

Low- to medium-quality, self-assembly flat-stock furniture is becoming increasingly popular. It requires short innovation circles with tailor-made products. With our broad expertise in the water-based dispersion portfolio of Joncryl® self-crosslinking emulsions, you will find the most suitable solution for clear and pigmented systems. For economically driven applications, such as furniture backings, you aim for fast-drying, high-pigment wetting at a reasonable cost. Depending on your challenge, we recommend Joncryl® colloidal and self-crosslinking emulsions. Within the furniture industry, special applications such as furniture foils are becoming increasingly popular due to the possibility for differentiation. The Luhydran® dispersion portfolio is especially targeting such applications.

For high-quality furniture such as kitchen cabinets or bathroom furniture, a balanced combination of gloss and scratch and chemical resistance are mandatory. Our water-based Joncryl® OH-functional emulsions in combination with water-emulsifiable Basonat® polyisocyanates provide reliable protection for heavily utilized wooden surfaces. Durability helps you to save resources and contributes to more sustainable living spaces.

Floor coatings – Take a walk on the water-based side

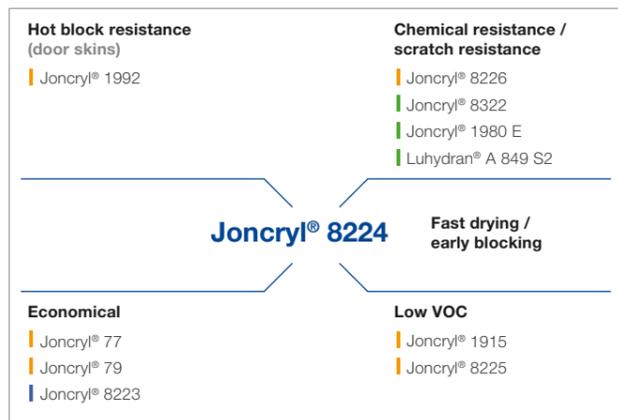
Backed by world-leading chemicals expertise, BASF helps coating manufacturers to move away from conventional technologies and switch to 1K and 2K water-based systems. We have developed a broad technology toolbox consisting of several water-based technologies that offer you choice according to your specific requirements.

For “on-site” coating of wooden floors, covering either existing or new flooring, fast drying and low VOC levels are key to reducing in-house emissions and allowing fast recoatability for shorter downtimes. Water-based systems can be tailored to meet these requirements. Furthermore, our Joncryl® and Luhydran® self-crosslinking dispersions enable tailoring the appearance of wooden floors – from a natural look to strong grain enhancement.

Joncryl® U polyurethane dispersions and Joncryl® HYB polyurethane acrylic dispersions used as a single component or in combination with water-emulsifiable Basonat® polyisocyanates for 2K systems are designed to create resistant parquet floorings, in highly utilized areas such as children’s bedrooms, offices, or shops. Longer-lasting coatings help to protect the beauty of wooden floors, and, in turn, to save resources and costs for your customers.

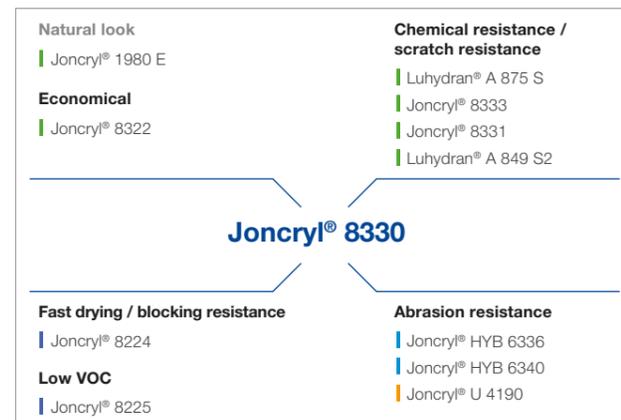
Selected recommendations for flat-stock

Colloidal Self-crosslinking RC / conventional



Selected recommendations for medium- / high-quality furniture and flooring

RC Self-crosslinking PUD Acrylic / PUD Hybrid



Joncryl® 661 / Joncryl® 663 – Alkali soluble resin to improve transfer

Water-based acrylic emulsions and colloidal dispersions

■ Suited ■■ Highly recommended

Product	Appearance	Solids by weight [%]	pH	Viscosity [mPa·s]	MFT [°C]	Acid number on solids [mg KOH/g]	Tg [°C]	Key properties	Coating layer			Application segment		Detailed application	
									Primer/sealer	Topcoat	Stains	Furniture	Flooring		
Acrylic emulsions															
Joncryl® 77	Semi-translucent emulsion	46.0	8.1	550	12	62	35	Good balance of flexibility / hardness, excellent pigment wetting	■■	-	-	■■	■	Medium-hard emulsion recommended as blending partner to improve flexibility and adhesion in combination with colloidal emulsions	
Joncryl® 79	White emulsion	50.0	7.5–9.0	700–1,500	20	23	22	High pigment binding power, excellent cost performance, high solid content	■■	-	-	■■	-	Excellent cost-performing emulsion for pigmented primers, furniture backings	
Joncryl® 1915	Semi-translucent emulsion	44.0	8.5	700	< 5	68	43	Very good block resistance, excellent adhesion, low VOC, pigment dispersing capability	■■	-	-	■■	-	Emulsion for hardboard and other flat-stock coatings	
Joncryl® 1992	White emulsion	43.0	8.5	125	> 60	18	78	Excellent hot block resistance, excellent sandability, good water resistance	■■	-	-	■■	-	Emulsion to be applied with roller or curtain coaters on, e.g., door skins	
Joncryl® Pro 1537	Translucent emulsion	46.0	8.4	250	45	49	46	Good hardness development, good water and chemical resistance, good adhesion	■■	■	-	■■	-	Hard emulsion for wood and board primers	
Joncryl® 8223	Semi-translucent emulsion	30.0	8.2	250	< 5	100	21	Good water resistance, good intercoat adhesion with 100% UV systems, good pigment wetting	■■	-	-	■■	-	Emulsion for economic industrial wood and board primers	
Joncryl® 8224	Translucent emulsion	45.0	7.7	70	10	53	-	Very fast drying, excellent block resistance and stackability	■■	■■	■	■■	■	Emulsion recommended for primers and topcoats	
Joncryl® 8225	Translucent emulsion	45.0	7.8	75	< 5	57	-	Excellent clarity, very fast drying, good block resistance, good stackability, low VOC	■■	■■	■	■■	■	Low VOC emulsion for use in fast industrially applied clear lacquers for furniture and flat-stock	
Joncryl® 8226	Semi-translucent emulsion	42.0	7.9	75	20	36	-	Excellent scratch resistance and block resistance, fast drying, good chemical resistance and clarity	■	■■	■	■■	■	Emulsion for industrial interior wood coatings on fast lines	
Joncryl® 8227	Semi-translucent emulsion	40.0	9.0	160	< 0	12	7	Good isolating properties on tropical hardwoods and engineered wood types	■■	-	■■	■■	■	Flexible emulsion for anti-bleeding industrial primer for tropical hardwoods and engineering wood	
Joncryl® 8228	Semi-translucent emulsion	48.0	7.9	600	< 5	68	< 0	Low VOC, good appearance and grain enhancement	-	■	■■	■■	■■	Emulsion for exterior and interior stains, high gloss brushing enamels as well as industrial applied timber coatings	
Colloidal dispersions															
Joncryl® 95 E	Translucent emulsion	30.0	8.0	100	20	70	43	Excellent penetration, minimal grain raising, excellent clarity and sandability, fast drying	-	-	■■	■■	■■	Emulsion for quick-drying interior stains, wood sealers	
Joncryl® 663	Semi-translucent emulsion	40.0	6.2	450	-	131	30	High viscosity at low solids content, high transfer with roller coaters, good flow, leveling and good pigment wetting	■■	-	-	■■	■■	Emulsion for use as a thickener in various acrylic water-based paints, especially for rollercoat applications	
Joncryl® 661	Semi-translucent emulsion	44.0	2.1	60	-	154	70	High viscosity at low solids content, high transfer with roller coaters, good flow, leveling and good pigment wetting	■■	-	-	■■	■■	Emulsion for use as a thickener in various acrylic water-based paints, especially for rollercoat applications	

Water-based self-crosslinking acrylic emulsions

■ Suited ■■ Highly recommended

Product	Appearance	Solids by weight [%]	pH	Viscosity [mPa·s]	MFT [°C]	Acid number on solids [mg KOH/g]	Tg [°C]	Key properties	Coating layer			Application segment		Detailed application	
									Primer/sealer	Topcoat	Stains	Furniture	Flooring		
Self-crosslinking acrylic emulsions															
Joncryl® 8322	Semi-translucent emulsion	41.0	8.6	500	30	18	-	Economical, good clarity and warmth of wood, quick hardness development, good chemical resistance, hardness, and sandability	■	■■	-	■■	■	Emulsion developed for use in industrial wood coatings	
Joncryl® 8330	Semi-translucent emulsion	38.0	8.1	50	33	21	-	High clarity and chemical resistance, excellent block, good hardness development	■	■■	-	■■	■	Emulsion for high-quality interior clear and pigmented water-based wood coatings blending partner for UV dispersions	
Joncryl® 8331	Semi-translucent emulsion	38.5	8.1	80	59	17	-	Excellent chemical and scratch resistance, very good hot block resistance, quick hardness development, excellent sandability	■	■■	-	■■	■	Emulsion developed for use in industrial wood coatings	
Joncryl® 8333	White emulsion	45.0	7.2	250	58	24	-	Good scratch resistance, superior plasticizer and hand cream resistance	■	■■	-	■■	■	Emulsion for interior coatings with superior plasticizer and hand cream resistance	
Joncryl® 8336	Semi-translucent emulsion	40.0	8.0	75	< 5	25	-	Fast drying, good block resistance, good blending partner to reduce the solvent demand, balanced chemical resistance	-	■■	-	■■	-	Emulsion for industrial applied clear and pigmented finishes for primer and topcoat	
Joncryl® 1980 E	Semi-translucent emulsion	39.0	8.6	150	56	18	-	Good chemical resistance, good scratch and mark resistance, low VOC, natural look	-	■■	-	■■	■■	Emulsion for interior wood applications	
Luhdran® A 849 S2	White emulsion	44.0	7.0	200	39	20	37	High chemical resistance, excellent grain enhancement and scratch resistance	■	■■	-	■■	■	Second-generation emulsion for interior wood coatings	
Luhdran® A 875 S	White emulsion	44.0	7.0	60	60	21	-	Good block resistance, clarity, film forming, sandability, excellent chemical, plasticizer, and scratch resistance	-	■■	-	■■	■■	All-round emulsion for industrial interior wood coatings	

OH-functional acrylic emulsions

■ Suited ■■ Highly recommended

Product	Appearance	Solids by weight [%]	pH	Viscosity [mPa·s]	MFT [°C]	Hydroxyl number on solids [mg KOH/g]	Acid value on solids [mg KOH/g]	Key properties	Coating layer			Application segment		Detailed application
									Primer/sealer	Topcoat	Stains	Furniture	Flooring	
Joncryl® OH 8311	Translucent emulsion	42.0	7.6	40	50	120	30	Hydroxy-functional dispersion, excellent adhesion, resistance to water, chemicals, and solvents	-	■■	-	■■	■■	Hydroxy-functional emulsion for ambient-curing water-based 2K PU wood coatings
Joncryl® OH 8312	White emulsion	44.0	8.2	300	48	100	9	Hydroxy-functional dispersion, long pot life up to 6 hours, low coalescing solvent demand, excellent chemical resistance, good scratch resistance, good hardness development, block resistance, and adhesion	-	■■	-	■■	■■	Hydroxy-functional emulsion for water-based 2K PU systems applied for high-quality furniture and floor coatings
Joncryl® OH 8313	White emulsion	45.0	2.7	360	48	100	9	Hydroxy-functional dispersion, long pot life up to 6 hours, low coalescing solvent demand, excellent chemical resistance, good scratch resistance, good hardness development, block resistance, and adhesion	-	■■	-	■■	■■	Hydroxy-functional emulsion for water-based 2K PU systems applied for high-quality furniture and floor coatings
Luhdran® S 938 T	White emulsion	45.0	2.0	25	60	100	-	Hydroxy-functional dispersion, good chemical resistance and blocking	-	■■	-	■■	■	Economical emulsion for furniture foils or heat-curable coatings and 2K PU wood coatings

OH-functional acrylic emulsions

Polyurethane dispersions and polyurethane acrylic hybrids

■ Suited ■■ Highly recommended

Product	Appearance	Solids by weight [%]	pH	Viscosity [mPa·s]	MFT [°C]	Acid number on solids [mg KOH/g]	Key properties	Coating layer			Application segment		Detailed application
								Primer/sealer	Topcoat	Stains	Furniture	Flooring	
Polyurethane dispersions and polyurethane acrylic hybrids													
Joncryl® U 4180	White emulsion	35.0	10.0	1,750	< 0	-	Solvent-free, intrinsic matt PU dispersion for soft touch, flexible and elastic, suitable for 2K application	-	-	-	-	-	Especially suited for matt soft touch 1K PU coatings or as matting aid
Joncryl® U 4190	Translucent emulsion	36.5	8.5	80	23	-	Solvent-free, aliphatic water-based polyurethane dispersion, very good Taber®1 abrasion resistance, film toughness and chemical resistance, excellent adhesion	-	■■	-	■■	■■	Ecological dispersion for high-quality water-based clear coats on wooden flooring
Joncryl® U 4320	White emulsion	40.0	8.0	15–95	0	-	Aqueous polyurethane dispersion, elastic behavior over a wide temperature range, high gloss and good adhesion	■	■■	-	■■	-	Blending partner for acrylic primers and topcoats with improved elasticity and adhesion
Joncryl® HYB 6336	Translucent emulsion	38.0	8.0	50	40	26	Cost-effective, solvent-free, excellent appearance, clarity, chemical as well as scratch resistance, good grain enhancement	■	■■	-	■■	■■	Ecological aliphatic polyurethane acrylic hybrid for high-quality water-based clear coats on wood
Joncryl® HYB 6340	White emulsion	40.0	7.6	50	45	12	Solvent-free, high solid polyurethane acrylic hybrid with excellent Taber®1 abrasion resistance, fast hardness development, good chemical resistance	■	■■	-	■	■■	Hybrid for high-quality water-based clear coats on wood for parquet flooring applications and high-performance furniture topcoats

■ New product

®1 = Registered trademark of Taber Acquisitions Corporation

Resin solutions, grinding resins, waxes, and crosslinker solutions

Product	Appearance	Solids by weight [%]	pH	Viscosity [mPa·s]	Acid number [mg KOH/g]	Tg [°C]	Mw	Key properties	Detailed application
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Resin solutions for water-based coatings

Joncryl® HPD 71 E	Clear liquid	31.0	8.5	200	221	120	17,000	Excellent viscosity stability, pigment wetting, and color development	Very-low-VOC MEA-neutralized resin solution of Joncryl® HPD 671
Joncryl® HPD 96 E	Clear liquid	31.0	8.5	2,000	233	105	16,500	Excellent viscosity stability, pigment wetting, and color development	Very-low-VOC ammonia-neutralized resin solution for highly concentrated pigment dispersions
Joncryl® 8078	Clear liquid	32.0	8.3	1,750	224	101	8,500	Excellent pigment wetting, resolubility, compatibility, flow (ammonia solution of Joncryl® 678)	Solution-stable pigment pastes

Grinding resins for water-based coatings

Laropal® LR 9008	Yellowish liquid	35.0	7.5–8.5	2,000–15,000	-	-	-	Excellent pigment wetting, broad compatibility	Solution of a modified urea-aldehyde resin for universal pigment dispersions
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Product	Product type	Appearance	Solids by weight [%]	pH	Viscosity [mPa·s]	Melting point of wax [°C]	Key properties	Description and application
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Waxes and crosslinker solutions

Zinc Oxide Solution #1	Additive	Clear solution	25.0	11.4	5	-	Water resistance, drying, hardness	Crosslinker for carboxy-functional acrylics to improve early resistance properties
Joncryl® Wax 35	Additive	Semitranslucent emulsion	34.5	9.8	25	130	Improves scratch, slip, and block resistance	Polyethylene wax to improve scratch resistance, slip and block resistance

Water-emulsifiable and dilutable polyisocyanate crosslinkers

Product	Type	Key properties and applications	Solids by weight [%]	Viscosity [mPa·s, 25 °C]	Solvent	NCO [%]
Water-emulsifiable and dilutable polyisocyanate crosslinkers						
Basonat® HA 1000	HDI-allophanate	Low-viscosity polyisocyanates for high solid solvent-based 2K coatings. It can also be combined with water-emulsifiable Basonat® HW types and secondary dispersions for water-based 2K wood coatings	100	900–1,500	-	21.0–23.0
Basonat® HA 2000			100	500–900	-	18.5–21.5
Basonat® HA 3000			100	200–400	-	19.0–20.0
Basonat® HI 2000	HDI isocyanurate low-viscous	Low viscosity trimer for high solid 2K PU coatings without limitation in chemical resistance and reactivity. It can also be combined with water-emulsifiable Basonat® HW types and secondary dispersions for water-based 2K PU wood coatings	100	900–1,500	-	22.5–23.5
Basonat® HW 1000	-	Hydrophilic, fast-drying polyisocyanate for general use in water-based 2K PU coatings for low VOC systems providing excellent chemical resistance. For interior furniture and flooring applications	100	2,000–6,000	-	16.5–17.5
Basonat® HW 1180 PC	-	Diluted version of Basonat® HW 1000 for faster incorporation in water-based 2K PU systems	80	450–850	Propylene carbonate	13.2–14.0
Basonat® HW 2000	-	Easy mixing version of Basonat® HW 1000 providing a combination of fast drying and easy mixing e.g., for professional use	100	1,500–3,000	-	17.5–18.5
Basonat® HW 2100	-	All-purpose, hydrophilic polyisocyanate for general use in water-based 2K PU coatings for low VOC systems with balanced properties regarding miscibility, resistance, and reactivity for interior furniture and flooring applications	100	2,000–3,600	-	16.9–17.9
Basonat® HW 3180 B	-	A special polyisocyanate for fast-drying 2K PU systems, fast hardness development with primary and secondary dispersions. In primary dispersions significantly enhanced pot life compared to standard systems	80	600–1,200	Butyl acetate	12.0–13.0

Amino-resin crosslinkers

Product	Key properties	Etherifying alcohol	Solvent	Non-volatile at 2 h, 125 °C	Max. free formaldehyde [%]	Viscosity [mPa·s]	Platinum-cobalt color number	Baking reactivity	Reactivity with acids	Description and applications
Melamine-formaldehyde-amino resins										
Luwipal® 066	Developed to formulate acid-curable finishes as well as baking finishes. Because of the low viscosity, this resin is particularly suited for high-solids coatings	Methanol	Solvent-free	95.0	0.6	2.0–6.0	≤ 50	Low	High	A highly reactive resin that can be used as a crosslinker for acid-curable systems and water-based coatings based on acrylic dispersions for furniture foils as well as decorative foils and sheets
Luwipal® 069	Developed for use as a crosslinker for water-based coatings based on alkyd resins or acrylic dispersions and, e.g., in combination with saturated polyesters for solvent-based coatings	Methanol	Methanol/ethanol	81.0	1.5	2.5–3.5	≤ 50	Medium to high	Medium	A medium-reactive resin that can be used as a crosslinker for both water-based coatings based on alkyd resins or acrylic dispersions and in combination with saturated polyesters for a wide variety of furniture foil applications
Luwipal® 070	Developed for use as a crosslinker for both water-based coatings based on alkyd resins or acrylic dispersions and, e.g., in combination with saturated polyesters for solvent-based coatings	Methanol	n-Butanol	81.0	< 1	6.0–10.0	≤ 50	Medium	Medium	A medium-reactive resin for furniture foils and decorative foils or sheets. Luwipal® 070 is soluble in a wide range of diluents used in the coatings industry for both water- and solvent-based formulations
Luwipal® 073	Developed for use as a crosslinker for water-based coatings based on acrylic dispersions or alkyds	Methanol	Water	80.0	< 0.5	3.0–5.0	≤ 50	High	Medium	A medium-reactive resin for furniture foils and decorative foils or sheets with good compatibility
Urea-amino resins										
Plastopal® BTM	Water-thinable, low backing reactivity as well as medium to high acid reactivity	Methanol	Water	-	< 2.1	2.5–3.7	≤ 50	Low	Medium to high	Tailored for acid-curable coatings for wooden panels, fiberboards, and decorative paper laminates
Plastopal® BTW	Water-soluble, low backing reactivity as well as medium to high acid reactivity, low formaldehyde emissions	Methanol	Water	77.0	< 0.8	1.0–1.5	≤ 50	Low	Medium to high	Tailored for acid-curable coatings with low release of formaldehyde for wooden panels, fiberboards, and decorative paper laminates

Water-based UV resins

■ Low ■■ Medium ■■■ Good ■■■■ Excellent

Product	Type of resin	Type of thinner [content]	Functionality calculated	Viscosity [Pa·s, 23 °C]	Hydroxyl value [mg KOH/g] DIN EN ISO 4629	Hardness	Elasticity	Reactivity	Chemical resistance	Characteristics	Europe REACH	USA TSCA	Canada DSL	Japan ENCS	China IECSC	Korea ECL
Water-based UV resins																
Laromer® LR 8949	Aliphatic urethane acrylate dispersion	Water [60%]	1.7	0.015–0.18	pH 7.0–9.0	■■	■■■■	■■	■■■■■	Good grain enhancement, very good chemical and weather resistances	■	■	-	-	-	-
Laromer® LR 8983	Aliphatic urethane acrylate dispersion	Water [60%]	0.7	0.05–0.3	pH 6.0–8.0	■■	■■■■■	■■	■■	Excellent physical-drying properties, easy to formulate	■	■	-	■	-	-
Laromer® LR 9005	Aliphatic urethane acrylate dispersion	Water [60%]	2.0	0.02–0.25	pH 7.0–9.0	■■■■■	■■	■■	■■■■■	Excellent scratch and chemical resistances	■	■	■	-	-	■
Laromer® UA 9064	Aliphatic urethane acrylate dispersion	Water [62%]	-	0.02–0.25	pH 6.5–7.5	■■■■■	■■	■■	■■■■■	Good chemical and scratch resistance, hard, low-yellowing	■	-	-	-	-	-
Laromer® UA 9095	Urethane acrylate dispersion	Water [60%]	2.2	0.05–0.5	pH 7.3–8.3	■■■■■	■■	■■	■■■■■	Good grain enhancement on wood, excellent adhesion on PVC	■	-	-	-	-	-
Laromer® WA 9057	Acrylic UV dispersion	Water [64%]	-	0.01–0.2	pH 7.6–8.2	■■■	■■■	■■	■■■	Good chemical and scratch resistances, excellent block resistance	■	■	-	■	-	■