

COATING RESINS

Binders for Architectural Coatings

- Extensive chemistry options to help you tailor a binder choice to your needs
- Waterborne and solventborne options for interior and exterior wall, trim, wood, metal and masonry applications



ARKEMA
INNOVATIVE CHEMISTRY

DELIVERING MORE CHOICES IN POLYMERS FOR ARCHITECTURAL COATINGS

When you evaluate the raw materials for your formulated products, Arkema's Coating Resins business offers a wide range of technology platforms to choose from to meet your exact requirements.

Enhanced and new binders have been developed to allow our customers to formulate paints and varnishes which may be compliant with criteria for the award of relevant ecolabels in Europe (for paints and varnishes), such as EU Ecolabel, Nordic Ecolabel, NF Certification Mark, Blue Angel.

Our extensive line of waterborne binders and opaque polymers includes:

- **CELOCOR® Opaque Polymers**

CELOCOR® opaque polymer is a highly efficient, voided latex product that improves hiding and whiteness in paints and coatings, and functions as a partial replacement for titanium dioxide (TiO₂).

- **ENCOR® Polymers**

Vinyllic, styrene-acrylic and acrylic emulsions based on APEO-free surfactants. A pure acrylic backbone imparts high UV resistance and non-yellowing properties. Using special monomers and technologies, acrylics offer a high level of performance, including wet

adhesion and stain-blocking resistance for demanding applications such as isolating wall and wood coatings, primers and facade paints.

- **SNAP® Structured Nano-Acrylic Polymers**

With SNAP® technology, it is easy to reach both the necessary rheological profile to give excellent application properties and also enable excellent film formation at low VOC (Volatile Organic Compounds). SNAP® polymers offer balanced properties, high gloss potential, stain resistance and block resistance.

- **SYNAQUA® Waterborne Alkyds**

The SYNAQUA® product line provides alkyd technology in a waterborne system. The products in this range can be formulated alone or in combination with specific ENCOR® or SNAP® polymers to impart alkyd properties into paints and varnishes.

Our line of performance-proven solventborne binders includes:

- **GELKYD® Thixotropic Alkyds**

Polyamide-modified alkyds that impart thixotropy into a wide range of decorative coatings – from non-drip to light creamy structures, in primers and full-gloss topcoats.

- **SUPERGELKYD® Thixotropic Alkyds**

Urea modified alkyds resistant to polar additives and solvents that are especially recommended for wood stains.

- **SYNOLAC®**

Solvent based alkyd and modified alkyd resins.

- **UNITHANE®**

Urethane alkyds and oils.





Good things happen when chemistry gets personal.

Innovation. Opportunity. Growth. And though we have the expertise, resources and a broad range of products, like waterborne acrylic binders, to cover virtually every architectural application, that's simply not enough. We believe what sets Arkema apart is understanding — your goals, your applications...you. And you can't understand without listening. That's how we help customers build a coating system that delivers both efficiencies and performance. This is what moves practical innovation forward and adds color to the markets we serve.

COATING RESINS GLOBAL RESOURCES

China/Asia Pacific/India

Changshu – *production plant*
Changshu, Jiangsu Province
PCR

Changshu – *technical center*
Changshu, Jiangsu Province
PCR

Guangzhou Technical Service and
Application Centre
Science City, Guangzhou, China

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general office
81700 Pasir Gudang Johor Malaysia

Arkema Coating Resins Malaysia Sdn. Bhd.
– *production plant*
PLO 491, Jalan Keluli, Pasir Gudang,
Johor, Malaysia

Navi Mumbai, India, – *production plant,*
technical service
Navi Mumbai, Maharashtra 400706, India

Europe – Middle East - Africa

Verneuil-en-Halatte – *research center*
60550 Verneuil-en-Halatte, France

ARKEMA GmbH – *production plant*
Niederlassung Arkema Coating Resins
Flurstraße
08056 Zwickau, Germany

ARKEMA S.R.L. – *production plant*
Boretto Italy

ARKEMA S.R.L. – *technical center*
Boretto Italy

ARKEMA S.R.L. – *production plant*
Gissi (CH) Italy

Arkema Coating Resins SAU –
production plant
Mollet del Vallès (Barcelona), Spain

Arkema Coating Resins SAU –
production plant
Sant Celoni (Barcelona), Spain

Arkema Coating Resins SAU –
technical center
Sant Celoni (Barcelona), Spain

Arkema B.V. – *production plant*
Brummen, The Netherlands

Viissingen – *production plant*
Ritthem, The Netherlands

North America

Arkema Coating Resins – *production plant*
Alsip, IL

Arkema Coating Resins – *production plant*
Grand Rapids, MI

Arkema Coating Resins – *production plant*
North Kansas City, MO

Arkema Coating Resins – *production plant*
Hahnville, LA

Arkema Coating Resins – *production plant*
Torrance, CA

Arkema Coating Resins – *production plant*
Mobile, AL

Arkema Coating Resins – *research center*
Cary, NC

Arkema Coating Resins – *technical center*
North Kansas City, MO

South America

Coatex/Arkema Coating Resins –
São Paulo *production plant*
Araçariquama, São Paulo, Brazil

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BINDERS FOR INTERIOR/EXTERIOR WALL COATINGS

PRODUCT	CHEMISTRY	SOLIDS (%)	TYPICAL VISCOSITY MPAS (23°C)	MFFT°C	LOW VOC FORMULATION	INTERIOR	EXTERIOR MASONRY	ELASTOMERIC	PRIMERS	GLOSS	SUGGESTED USES/ PROPERTIES
CELOCOR® 2801	Opaque Polymer	30.5	<500	n.a.	••	••	••				Voided latex material that imparts hiding and functions as a partial replacement for titanium dioxide.
ENCOR® 2138	Acrylic	50	100	<5	••	••	••				Excellent film formation and pigment binding power for high PVC paints and exterior coatings. Free of formaldehyde releaser and ammonia.
ENCOR® 2140	Acrylic	60	4000	6	•	•	••				High solids pure acrylic adapted to exterior textured coatings. Formaldehyde releaser free.
ENCOR® 2144	Acrylic	30	50	<1	••				••		Low particle size acrylic for penetrating primers.
ENCOR® 2222	Acrylic	46	4000	6	•	••	•				Pure acrylic for interior and exterior wall paints, good balance price performance.
ENCOR® 2505	Acrylic	47	<500	<5	•		••		•		Particularly adapted to the formulation of paints and primers for mineral substrates, especially silicate paints.
ENCOR® 2506	Acrylic	47	200	<5	••	••	••		••		Low VOC matt to satin paints with good water resistance and low tackiness. Free of formaldehyde releaser and ammonia.
ENCOR® 2710	Acrylic	42	<200	4	••	••			••		Low MFFT acrylic for renovation paints and primers. Excellent stain blocking and adhesion properties. Free of formaldehyde.
ENCOR® 2741	Acrylic	46	70	19		••	•			•	Formulation of satin and glossy interior pure acrylic wall coatings and high quality exterior paints.
SNAP® 2785	Acrylic	43	<1000	<5	••	••	••				Low MFFT acrylic with good film formation, blocking resistance and outdoor durability. Adapted to the formulation of low VOC quality wall and trim paints. Free of formaldehyde releaser and ammonia.
ENCOR® 2100	Styrene Acrylic	50	2000	<1	••	••	••	•			Universal low MFFT binder for interior and exterior paints, plasters, silicone and silicate based coatings. Free of formaldehyde releaser and ammonia.
ENCOR® 2105	Styrene Acrylic	60	1000	<1	••	•	••	••			Flexible binder for roof and facade coatings. It exhibits a good durability thanks to its good and stable mechanical properties.
ENCOR® 2423	Styrene Acrylic	50	10000	20		••	••				Universal binder for interior and exterior paints, plasters, silicone and silicate based coatings.

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BINDERS FOR INTERIOR/EXTERIOR WALL COATINGS (CONTINUED)

PRODUCT	CHEMISTRY	SOLIDS (%)	TYPICAL VISCOSITY MPAS (23°C)	MFFT°C	LOW VOC FORMULATION	INTERIOR	EXTERIOR MASONRY	ELASTOMERIC	PRIMERS	GLOSS	SUGGESTED USES/ PROPERTIES
ENCOR® 2425	Styrene Acrylic	50	7000	21		••	••				Universal binder for interior and exterior paints. Formaldehyde releaser free.
ENCOR® 2426	Styrene Acrylic	50	7000	21		••	••		•	•	Ammonia and formaldehyde releaser free multi-purpose binder.
ENCOR® 2514	Styrene Acrylic	30	100	<1	••				••		Low particle size binder for good penetrating primers with good alkali resistance.
ENCOR® 2322	Vinyl-Versatate	50	4500	<5		••	••				Wall paints with good application by roller; contains butyldiglycol acetate.
ENCOR® 2326	Vinyl-Versatate Acrylic	55	4500	11		••	••			•	Acrylic modified for matt paints with good scrub resistance to glossy wall coatings.
					FATTY ACID CONTENT %						
SYNAQUA® 2070	Alkyd	53	<500	50	••	•			••		Medium oil alkyd emulsion for undercoats for interior and exterior primers and wood coatings.
SYNAQUA® 4804	Alkyd	50	<300	37	••	••			••	••	Very high gloss potential, good gloss retention and hardness development alkyd emulsion for solvent free high quality coatings; good stain resistance.
SYNAQUA® 6812	Alkyd	100	2000	80	••	•			••		Self-emulsifiable alkyd used as grinding medium. Co-binder for wall primers with improved adhesion on porous substrates (gypsum, plasterboards...)
SYNAQUA® 4856	Alkyd	50	<500		••	••			•		Bio-based (Bio-based carbon on total carbon: >96%) alkyd emulsion with low yellowing and excellent hardness development.

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BINDERS FOR WOOD AND METAL COATINGS**

PRODUCT	CHEMISTRY	SOLIDS (%)	TYPICAL VISCOSITY MPAS (23°C)	MFFT°C	LOW VOC FORMULATION	WOOD TRIM	WOOD PRIMERS	WOOD STAINS	METAL PRIMERS	GLOSS	SUGGESTED USES/ PROPERTIES
ENCOR® 2124	Acrylic	43	50	3	•	•		••			Pure acrylic giving good blocking and durability for exterior wood stains.
ENCOR® 2135	Acrylic	48	1500	10			•	••			Pure acrylic for exterior wall and wood coatings.
ENCOR® 2144	Acrylic	30	50	<1	••		•	•			Low particle size acrylic for penetrating wood stains.
ENCOR® 2506	Acrylic	47	200	<5	••			••			Low VOC matt to satin paints with good water resistance and low tackiness for exterior wood coatings. Free of formaldehyde releaser and ammonia.
SNAP® 2709	Acrylic	46	<500	5	••	••	•	•		•	Acrylic for high quality interior/ exterior trim paints with excellent blocking resistance. Low MFFT binder requiring little or no coalescents for excellent film formation.
ENCOR® 2710	Acrylic	42	<200	4	••		••				Low MFFT acrylic for renovation paints and primers. Excellent stain blocking properties and low grain raising. Good adhesion properties.
ENCOR® 2711	Acrylic	43	<1000	15			••			•	Formulation of satin and glossy interior pure acrylic wall coatings and high quality exterior paints.
SNAP® 2785	Acrylic	43	<1000	<5	••	••	•	•		••	Acrylic for high quality wall and trim paints with excellent blocking resistance. Low MFFT binder requiring little or no coalescents for excellent film formation. Good stain resistance.
					FATTY ACID CONTENT %						
SYNAQUA® 2070	Alkyd	53	<500	50	••	•	••	••	•		Medium oil alkyd emulsion for undercoats for interior and exterior primers and wood coatings.
SYNAQUA® 4804	Alkyd	50	<300	37	••	••			••	••	High gloss potential short oil alkyd emulsion for trim paints. Excellent drying and hardness properties for low VOC interior and high quality exterior coatings.
SYNAQUA® 4893	Alkyd	50	<300	37	••	••			••	••	Low foaming version for high quality enamels; well adapted to combination with SNAP® 2142 for best balances of applicative and film properties.
SYNAQUA® 6812	Alkyd	100	2000	80	••		•	•			Self-emulsifiable alkyd emulsion with good penetration properties. Can be used as adhesion improvement additive and pigment base grinding medium.
GELKYD® 352 WD 54	Thixotropic Alkyd	54		62		••	••	•	••	••	High structured GELKYD® for use with long oil alkyds to give thixotropy in high gloss and satin paints.

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BINDERS FOR WOOD AND METAL COATINGS** (CONTINUED)

PRODUCT	CHEMISTRY	SOLIDS (%)	TYPICAL VISCOSITY MPAS (23°C)	FATTY ACID CONTENT %	LOW VOC FORMULATION	WOOD TRIM	WOOD PRIMERS	WOOD STAINS	METAL PRIMERS	GLOSS	SUGGESTED USES/ PROPERTIES
GELKYD® 367 WD 65	Thixotropic Alkyd	65		65		••	••	•	••	••	Medium structured GELKYD® for use with long oil alkyds to give thixotropy in high gloss and satin paints. Excellent tinter compatibility.
GELKYD® 4648 WD 80	Thixotropic Alkyd	80		79		••	••	••	••	•	High solids GELKYD® with high structure for use with long oil alkyds to give thixotropy in wide range of paints.
SUPER GELKYD® 3915 WDA 55	Thixotropic Alkyd	55		69		•	*	••	•		SUPER GELKYD® in high flash solvent with high structure for use with long oil alkyds to give thixotropy in wide range of paints. Non-sensitive to polar solvents and colorants.
SUPER GELKYD® 3920 WDA 49	Thixotropic Alkyd	49		61		•	•	••	•		Pumpable SUPER GELKYD® in high flash solvent for use with long oil alkyds to produce thixotropy. Non-sensitive to polar solvents and colorants.
SYNOLAC® 60 WD 70	Alkyd	70	4500*	61		••	••	••	•	••	Standard long oil alkyd for wide range of use — good drying and hardness properties.
SYNOLAC® 6005 WDA 70	Alkyd	70	1600*	60				••			Flexible alkyd in high flash solvent for use in exterior coatings with excellent durability.
SYNOLAC® 4060 WDA 90	Alkyd	90	2000*	72		••				••	High solids long oil alkyd for use in category D paints— good drying and hardness development. Binder is in high flash solvent but also available in D40.
SYNOLAC® 4097 WD 75	Alkyd	75	4500*	62		••	•	•	•	••	General purpose long oil alkyd at 75% solids.
SYNOLAC® 4113 WDA 80	Alkyd	80	4000*	71				••			Isophthalic based long oil alkyd for use in exterior coatings with high film build and good durability.
SYNOLAC® 6883	Alkyd	100	4500*	83			••	••			Isophthalic based 100% LOA with excellent durability. Good pigment acceptability hence suitable for grinding medium.
SYNOLAC® 2700 WD 70	Alkyd	70	7000*	46		••		••			Silicon alkyd with good gloss retention and dirt-pick up properties.
UNITHANE® 655 WD 55	Urethane Alkyd	55	1500*	61		••		••	•		Standard aromatic based unithane alkyd with excellent hardness, abrasion resistance and drying properties.
UNITHANE® 644 WD 55	Urethane Alkyd	55	5000*	54		••		•	•		Aliphatic based unithane alkyd with excellent hardness, abrasion resistance and drying properties suitable for exterior coatings.

* Viscosity at 25°C ** See also industrial coatings brochure

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