

# RESINS FOR DECORATIVE COATINGS



RESINS FOR SUSTAINAB 

# **DECORATIVE**

# OUR RESINS FOR DECORATIVE COATINGS ENSURE BEAUTIFUL COLOURS AND A RELIABLE PROTECTION.

#### **GOLDEN RESINS**

We produce around 70,000 tons of liquid resins annually, including coating and composite resins. Our coating resin brands – DOMACRYL, DOMOPOL, DOMALKYD, DOMEMUL, DOMOPUR, ATRESIN, ATRELUX and ATRETHIX – have achieved a strong market position and are trusted for their quality and performance. With the combined strength of two strong production companies, ATCOAT and Helios Resins, we serve more than 50 countries worldwide. Our production sites in Germany and Slovenia allow us to deliver our quality resins throughout Europe and beyond. A broad product portfolio, intensive R&D and innovation capabilities, high production flexibility, and superior customer service are the strengths of Helios Resins and ATCOAT as a joint specialist for synthetic resins.

#### SUSTAINABLE APPROACH

By developing advanced, green, and long-lasting materials, we reduce emissions of hazardous organic solvents, incorporate bio-renewable raw materials and create a potential for energy savings. Our sustainable approach encompasses the production of bio-based materials, water-based resins, high solids, BPA non-intent resins, recycling, and participation in EU initiatives. We are the first in Slovenia to be ISCC Plus certified and offer several products made from sustainable raw materials that are certified in all parts of the value chain back to the point of origin. A sustainable future matters greatly to us, our business, and our customers. We are proud to see this reflected in the EcoVadis Gold Medal we received for our sustainability performance.

#### DEVELOPED WITH ADVANCED TECHNOLOGIES

Our laboratories and production facilities are fully equipped with the most advanced technologies, which enables the development and production of even the most complex solvent and waterborne resins. Our R&D has advanced skills as well as equipment for polyester and acrylic chemistry, including synthesis under pressure. By continually upgrading our production lines and expanding our production capacities, we can meet the most rigorous and complex needs and demands of our customers.

#### QUALITY OF SERVICE

We are committed to providing a flexible and reliable service while satisfying our customers' specific requests. Helios Resins and ATCOAT ensure the quality, stability and reproducibility of every delivery. Our extensive know-how, resulting from more than 100 years of experience, enables us to provide solutions to our customers' challenges. We produce tailormade resins for specific needs and offer support in developing customized applications.



# **ACRYLIC WATER** EMULSIONS

RESIN	DELIVERY FORM	VISCOSITY 23 °C [mPa.s]	рН	MFFT [°C]
DOMEMUL AA 9673	42 Wa	20 – 250	7.5 – 8.5	7
DOMEMUL AA 9674	41 Wa	20 – 500	7.0 – 8.0	50
DOMEMUL AA 9678	41 Wa	20 – 500	7.0 – 8.0	50
DOMEMUL AA 9679	41 Wa	20 – 500	7.0 – 8.0	50
DOMEMUL AA 9672	44 Wa	max. 150	7.5 – 9.5	0
DOMEMUL AA 9670	40 Wa	100 – 800	7.5 – 9.5	0
DOMEMUL AA 7962	45 Wa	20 – 250	6.0 – 8.0	0
DOMEMUL AA 7762	45 Wa	20 – 350	7.5 – 8.5	31
DOMEMUL AA 7764	45 Wa	20 – 350	7.5 – 8.5	31
DOMEMUL AA 7765	45 Wa	20 – 350	7.5 – 8.5	31
DOMEMUL AA 7777	47 Wa	100 – 1000	7.0 – 9.0	18
DOMEMUL SA 9262	42 Wa	50 – 250	8.0 – 8.5	30

# **ALKYD AND POLYURETHANE EMULSIONS**

RESIN	DELIVERY FORM	ACID VALUE on solid resin [mg KOH/g]	VISCOSITY 23 °C [mPa.s]
DOMALKYD 0460	38 Wa / MP		9000 – 15000
DOMALKYD 0545	40 Wa	max. 28	50 – 1000
DOMALKYD 0547	42 Wa	15 – 20	max. 10000
DOMALKYD 0801	58 Wa		max. 1200
DOMOPUR 0133	36 Wa	30 – 50	2000 – 8000
DOMOPUR 0411	35 Wa		20 – 300



BIO-BASED/RECYCLED CONTENT on solid resin [%]	DESCRIPTION
	Self-crosslinking acrylic emulsion for interior and exterior coatings, joinery. Fast drying and good anti-blocking.
	Self-crosslinking acrylic emulsion with OH-functionality for industrial coatings for interior, especially for furniture and joinery non-yellowing enamels with good water, chemical and blocking resistance.
10	Based on DOMEMUL AA 9674 with 10% bio-based content.
30	Based on DOMEMUL AA 9674 with 30% recycled content.
	Acrylic core-shell emulsion designed for interior and exterior wood coatings.
	Core-shell acrylic emulsion for interior and exterior coatings, joinery. Good anti-blocking.
	Core-shell acrylic emulsion for waterborne wood coatings with good chemical resistance, wetting, low-foaming, flow and transparency
	Self-crosslinking acrylic emulsion for waterborne wood finishes, interior. Good chemical and mechanical resistance, wetting, lowfoaming, flow and transparency. Hand cream resistance, fast drying and hardness.
15	Based on DOMEMUL AA 7762 with 15% bio-based content.
38	Based on DOMEMUL AA 7762 with 38% bio-based and recycled content.
	Hydrophobic acrylic dispersion for anti-corrosive applications, stain locking primers and primers for enhanced exterior durability. Suitable for DTM.
	Styrene-acrylic emulsion for metal, plastic and wood. Good mechanical and chemical resistance.

рН	BIO-BASED CONTENT on solid resin [%]	DESCRIPTION
8.0 – 9.0	79 <u>PISCC</u>	Acrylic modified alkyd emulsion. Top coats and primers for wood or steel substrates. Fast air drying, high gloss, excellent flow and very low-yellowing. Low VOC content.
7.0 – 8.0	60 PISCC	PU modified alkyd emulsion without organic solvents. Rapid air drying, high gloss and hardness, good water and chemical resistance. Approx. 1% hydroxyl content on solid resin.
7.5 – 8.5	60 PISCC	PU modified alkyd emulsion without organic solvents. Very rapid physical drying, high gloss and hardness.
7.5 – 8.5	72	Long oil, amine, and cosolvent-free alkyd emulsion, used for wood impregnations and topcoats.
7.0 – 8.5	47	Aqueous PU dispersion modified with unsaturated fatty acids for paints in spray cans.
7.0 – 9.0		PU dispersion based on polycarbonate polyol. Very good adhesion to plastic and wood substrates.  Offers high chemical, water and UV resistance.



### **ALKYD SOLVENTBORNE RESINS**

RESIN	DELIVERY FORM	OIL LENGHT / OIL TYPE	ACID VALUE on solid resin [mg KOH/g]
DOMALKYD 1666	75 D-60	68% Soyabean FA	max. 10
DOMALKYD 1673	60 D-60	67% Soyabean oil	max. 10
DOMALKYD 1755 LV	100%	75% Soyabean oil	max. 10
DOMALKYD 2645	100%	64% Linseed oil	max. 7
DOMALKYD 2755 LV	100%	80% Linseed oil	max. 15
DOMALKYD 7575	55 D-40	57% Soyabean FA	max. 5
DOMALKYD 7625	60 D-40	62% Soyabean oil	max. 5
DOMALKYD 7703	85 D-40	70% Mixed FA	max. 5
ATRETHIX 1/60 K6	60 W	75% Mixed FA	max. 6
ATRETHIX HS10/70 D6	70 D-60	63% Mixed FA	max. 8

## **ACRYLIC THERMOPLASTIC SOLVENTBORNE RESINS**

RESIN	DELIVERY FORM	ACID VALUE on solid resin [mg KOH/g]	VISCOSITY 23 °C [mPa.s]
DOMACRYL 820	58 X	max. 10	20000 – 24000
DOMACRYL 830	50 D-60 / SAB	max. 10	2400 – 3500
DOMACRYL 830	50 W	max. 10	2400 – 3500
DOMACRYL 833	50 D-30	max. 2	2500 – 3500
DOMACRYL 835	50 BAc	5 – 10	3000 – 5000
DOMACRYL 8382	65 D-60	max. 3	2000 – 3000
DOMACRYL 840	50 X	5 – 10	4000 – 6000
DOMACRYL 841	50 BAc	max. 10	3000 – 4000
DOMACRYL 854	65 BAc	15 – 25	5000 – 9000



VISCOSITY 23 °C [mPa.s]	DESCRIPTION
4000 – 6000	Standard resin for high gloss paints and lacquers for wood and metal.
3000 – 4500	Standard resin for decorative paints and lacquers for metal and wood.
6000 – 8000	Low VOC lacquers, stains and paints for wood. Very good weather resistance modified with isophthalic acid.
7000 – 11000	Universal binder for pigment pastes used for paints and stains.
2000 – 3000	Low viscosity drying alkyd for production of high solid low VOC paint system.
3000 – 4500	Aliphatic urethane (IPDI) alkyd resin for non-yellowing decorative enamels for wood and metal. Good outdoor durability.
2200 – 2800	Aromatic urethane (TDI) alkyd resin for universal finishes for wood, specially recommended for floors, boats and furniture.
4000 – 6000	Aliphatic urethane (IPDI) alkyd resin used for the preparation of universal pigmented paints and clear finishes for wood.
	Thix-alkyd with good stability against inhomogeneity and syneresis even at low solid content. Flexibility is maintained for a long time at outdoor exposure.
	High solid thix-alkyd for HS-paints with good stability against inhomogeneity and syneresis. Flexibility is maintained for a long time at outdoor exposure.

Tg VALUE (theoretical) [°C]	DESCRIPTION
56	High-grade masonry paints.
-7	Masonry paints, concrete paints. High flexibility.
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21	Exterior flexible protective coatings. Excellent solubility in aliphatic solvent. Also for aerosols.
47	Universal resin for protective coatings, using alone or in combination with vinyl resins. Good durability and abrasion resistance.
-	As a combination resin for optimization of different characteristics with long oil alkyd resins, air drying resin.
69	Pigmented and transparent paints with good heat stability, hiding power. Hard, tough and flexible. Also for aerosols.
69	Pigmented and transparent paints with good heat stability, hiding power. Hard, tough and flexible. Also for aerosols.
23	Primers and top coats for nonferrous metals and plastics. Excellent toughness, rapid drying, high gloss and adhesion.









