



2022  
EDITION

# THERMOSET RESINS FOR COMPOSITES

 **HELIOS** RESINS

HELIOS RESINS  
HAS BEEN  
PROVIDING  
**FLEXIBLE,**  
**HIGH-QUALITY**  
**AND RELIABLE**  
COMPOSITE  
SOLUTIONS  
SINCE 1964.



#### GOLDEN RESINS

Helios Resins is a separate business unit of KANSAI HELIOS, now part of Kansai Paint, one of the world's leading paint and coatings producers. Today, Helios Resins produces around 60,000 tons of liquid resins annually, including coating resins, composite resins, and polyester polyols for PU flexible foams. Our coating resin brands – DOMOPOL, DOMACRYL, DOMALKYD, DOMEMUL and DOMOPUR, and composite resin brands – COLPOLY, COLVINYL and COLGEL – have a strong market position and are trusted for their quality and performance. We currently serve more than 50 countries worldwide.

#### QUALITY OF SERVICE

We are committed to providing a flexible and reliable service while satisfying our customers' specific requests. Helios Resins ensures 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. Helios Resins experts produce tailor-made resins for specific needs and offer support in developing customized applications.

#### DEVELOPED WITH ADVANCED TECHNOLOGIES

Our laboratories and production facilities are fully equipped with the most advanced technologies, which enables the development and production of resins. Our R&D has advanced skills as well as equipment for polyester and acrylic chemistry, including synthesis under pressure. We are constantly upgrading our production lines and increasing our production capacities to meet the highest demands of our customers. In 2018 we introduced a new reactor line for water-based resins.

#### OUR STRENGTHS

- FLEXIBILITY
- ON-TIME DELIVERY
- HIGH QUALITY

**COLPOLY**  
Unsaturated  
polyesters

**COLVINYL**  
Vinyl  
esters

**COLGEL**  
Gel  
coats





I. GENERAL PURPOSE RESINS

GENERAL PURPOSE LAMINATING RESINS FOR  
HAND LAY-UP AND SPRAY-UP APPLICATIONS

PRODUCT	CHEMICAL NATURE	REACTIVE MONOMER CONTENT (%)	ELONGATION AT BREAK (%)	TENSILE STRENGTH (MPa)	HDT (°C)	REMARKS
COLPOLY 724 – series	OPA	42	1.5	60	65	Preaccelerated, thixotropic, LSE, low peak temperature, promoted.
COLPOLY 733 – series	DCPD	38	2.5	65	65	Preaccelerated, thixotropic, LSE, low peak temperature, promoted, Lloyd's approval (without LSE).
COLPOLY H 738-95	Hybrid VE/DCPD	39	3.0	70	105	Preaccelerated, thixotropic, barrier coat.
COLPOLY 752 – series	OPA	42	2.5	85	105	Preaccelerated, thixotropic, LSE, low peak temperature, promoted.
COLPOLY 780 – series	IPA	44	3.5	85	85	Preaccelerated, thixotropic, medium thix index, chemical resistant, LSE version on request, Lloyd's approval.
COLVINYL VE 101 AT	VE	46	4.5	80	105	Preaccelerated, thixotropic, barrier coat.

HIGH PERFORMANCE LAMINATING RESINS FOR  
HAND LAY-UP AND SPRAY-UP APPLICATIONS

PRODUCT	CHEMICAL NATURE	REACTIVE MONOMER CONTENT (%)	ELONGATION AT BREAK (%)	TENSILE STRENGTH (MPa)	HDT (°C)	REMARKS
COLPOLY 722 – series	OPA	43	2.5	70	75	Preaccelerated, thixotropic, LSE, low peak temperature, Lloyd's approval.
COLPOLY 781 – series	IPA/NPG	41	3.0	65	80	Preaccelerated, thixotropic, LSE, low peak temperature, Lloyd's approval.

\*Technical information for a respective product can be obtained from our team of dedicated salespeople.





## II. CASTING AND CLOSED MOULDING RESINS

### CASTING RESINS

PRODUCT	CHEMICAL NATURE	REACTIVE MONOMER CONTENT (%)	ELONGATION AT BREAK (%)	TENSILE STRENGTH (MPa)	HDT (°C)	REMARKS
COLPOLY 732 – series	DCPD	27-35	3.0	70	80	Artificial marble and onyx, various viscosities.
COLPOLY 733 – series	DCPD	32-34	2.5	60	100	Artificial marble and onyx, polymer concrete, various viscosities.
COLPOLY 7167	IPA/NPG	33	2.0	90	105	Solid surface, contains methacrylic monomer.
COLPOLY 7167-8A	IPA/NPG	33	2.0	90	105	Resin is recommended for quartz filled systems (Gebrüder Dorfner GmbH & Co.), contains methacrylic monomer, preaccelerated.

### RESIN TRANSFER MOULDING (RTM)

PRODUCT	CHEMICAL NATURE	REACTIVE MONOMER CONTENT (%)	ELONGATION AT BREAK (%)	TENSILE STRENGTH (MPa)	HDT (°C)	REMARKS
COLPOLY 7524-03	DCPD	37	4.0	75	85	Excellent impregnation.
COLPOLY 7524/8	OPA	37	3.5	80	90	Excellent impregnation.
COLPOLY 760 – series	DCPD	32	3.0	70	75	Fire retardant, halogenated.

### SHEET MOULDING COMPOUND (SMC), BULK MOULDING COMPOUND (BMC)

PRODUCT	CHEMICAL NATURE	REACTIVE MONOMER CONTENT (%)	ELONGATION AT BREAK (%)	TENSILE STRENGTH (MPa)	HDT (°C)	REMARKS
COLPOLY 757	OPA	36	2.0	40	115	High resistance to heat deformation, compatible with LP additives.
COLPOLY 768	Maleic	32	1.5	60	120	Low shrink SMC/BMC application.
COLPOLY 783-02	IPA	33	3.0	70	105	High crack resistance, high resistance to heat deformation, high viscosity and high reactivity.
COLPOLY 7572	OPA	35	1.5	70	120	High resistance to heat deformation, compatible with LP additives.
COLPOLY 7795	Maleic	35	2.0	40	130	Basic resin for LS formulation.
COLPOLY LPA 2600	Saturated polyester	30	-	-	-	LPA additive.

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III. RESINS FOR SPECIAL APPLICATIONS

SPRAY-UP LAMINATING RESINS FOR ACRYLICS AND/OR ABS

PRODUCT	CHEMICAL NATURE	REACTIVE MONOMER CONTENT (%)	ELONGATION AT BREAK (%)	TENSILE STRENGTH (MPa)	HDT (°C)	REMARKS
COLPOLY 724 A LSE	DCPD	40	1.5	55	70	Formulated to be filled with mineral fillers, preaccelerated, LSE (possible non LSE version on request), good adhesion on ABS.
COLPOLY 7331 LV	DCPD	37	2.5	65	70	Formulated to be filled with mineral fillers, preaccelerated, LSE (possible non LSE version on request), good adhesion on PMMA.
COLPOLY 736 WAT	DCPD	38	2.5	60	85	White pigmented, accelerated, thixotropic, LSE, formulated to be filled with mineral fillers, good adhesion on ABS and PMMA.

CONTINUOUS LAMINATING

PRODUCT	CHEMICAL NATURE	REACTIVE MONOMER CONTENT (%)	ELONGATION AT BREAK (%)	TENSILE STRENGTH (MPa)	HDT (°C)	REMARKS
COLPOLY 721 S	DCPD	36	3.5	60	80	Low viscosity, UV stabilised, good glass wetting, continuous sheet curing with MIBK, discontinuous laminating with MEKP or AAP.
COLPOLY 736 S	DCPD	30	2.5	65	85	Low viscosity, low styrene contain, UV stabilised, good glass wetting, continuous sheet curing with MIBK, discontinuous laminating with MEKP or AAP.
COLPOLY 739 S	DCPD	32	2.5	60	95	Low viscosity, UV stabilised, good glass wetting, continuous sheet curing with MIBK, discontinuous laminating with MEKP or AAP.

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PULTRUSION

PRODUCT	CHEMICAL NATURE	REACTIVE MONOMER CONTENT (%)	ELONGATION AT BREAK (%)	TENSILE STRENGTH (MPa)	HDT (°C)	REMARKS
COLPOLY RP 7015/8	DCPD	35	2.5	60	95	Medium reactive resin, good mechanical properties, good glass wetting.
COLPOLY 7558-02	OPA	35	3.0	70	100	Excellent mechanical properties, high impact strength, high HDT.
COLPOLY 779	Maleic	36	1.5	35	130	High resistance to heat deformation, high reactivity.
COLPOLY 7800	IPA	35	4.5	90	100	Fast through cure (possible different viscosity and solids content modified with LS additives etc.).
COLVINYL VE 105 LV	VE	34	5.5	85	105	Optimal wetting of the glass fiber, good mechanical properties and excellent corrosion resistant, high HDT.

VACUUM INFUSION

PRODUCT	CHEMICAL NATURE	REACTIVE MONOMER CONTENT (%)	ELONGATION AT BREAK (%)	TENSILE STRENGTH (MPa)	HDT (°C)	REMARKS
COLPOLY 7200 AI-LV	DCPD	37	3.0	75	80	Rapid fill times, low viscosity, resistance to print-through, preaccelerated.
COLPOLY 7810 AI	IPA/NPG	41	3.0	65	80	Rapid fill times, resistance to print-through, preaccelerated, Lloyd's approval.
COLPOLY 7609 FRI	DCPD	38	3.0	70	75	Flame retardant.

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FILAMENT WINDING

PRODUCT	CHEMICAL NATURE	REACTIVE MONOMER CONTENT (%)	ELONGATION AT BREAK (%)	TENSILE STRENGTH (MPa)	HDT (°C)	REMARKS
COLPOLY RP 7015/9	DCPD	30	2.5	70	85	Chemical resistance, low styrene content.
COLPOLY 7166	IPA/NPG	40	4.5	60	90	Excellent mechanical properties, high HDT, liner, adhesion on PVC.
COLPOLY 7543	OPA	35	3.5	75	90	Excellent mechanical properties, outstanding durability, chemical resistance.
COLPOLY 7854	IPA/TPA	40	4.0	90	100	Chemical resistance.

BASE RESINS FOR GEL COATS, TOP COATS AND PIGMENT CONCENTRATES

PRODUCT	CHEMICAL NATURE	REACTIVE MONOMER CONTENT (%)	ELONGATION AT BREAK (%)	TENSILE STRENGTH (MPa)	HDT (°C)	REMARKS
COLPOLY 7100	Maleic	free	-	-	-	Grinding medium for pigment concentrates.
COLPOLY 7160	IPA/NPG	40	4.0	85	100	Base resin for gel coats, UV stabilised, Lloyd's approval.
COLPOLY 7172	IPA	33	5.0	85	95	Base resin for gel coats, Lloyd's approval.

BONDING PASTES  
bonding pastes of various qualities

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IV. GEL COATS, TOP COATS AND PIGMENT CONCENTRATES

GEL COATS AND TOP COATS

PRODUCT	SEGMENT	CHEMICAL NATURE	APPLICATION	SHADE	REMARKS
COLGEL GC 100 series	General purpose	IPA or IPA/NPG	Spray or brush	Not pigmented or industrial white or RAL or custom-matched.	
COLGEL GC 200 series	Marine	IPA/NPG	Spray or brush	Not pigmented or industrial white or RAL or custom-matched.	Lloyd's approved.
COLGEL GC 300 series	Sanitary	IPA/NPG	Spray	Not pigmented or industrial white or RAL or custom-matched.	
COLGEL GC 400 series	Transportation	IPA or IPA/NPG	Spray or brush	Not pigmented or industrial white or RAL or custom-matched.	
COLGEL GC 600 series	Special properties	IPA	Spray or brush	Not pigmented or industrial white or RAL or custom-matched.	E.g. fire retardant.
COLGEL TC 600 series	Special properties	IPA or IPA/NPG or VE	Brush	Not pigmented or industrial white or RAL or custom-matched.	Top coat product line.

PIGMENT CONCENTRATES

MONO-PIGMENT CONCENTRATES			
COLGEL PK WHITE 1265	COLGEL PK VIOLET RL	COLGEL PK MELON YELLOW 1032	COLGEL PK ORANGE RED 1024
COLGEL PK BLACK 1267	COLGEL PK BLUE 1108	COLGEL PK SIGNAL YELLOW 1042	COLGEL PK OXIDE RED 1004
COLGEL PK OXIDE BLACK	COLGEL PK CITRON YELLOW 1043	COLGEL PK GREEN 1158	COLGEL PK OXIDE RED 1007
COLGEL PK VIOLET CQV	COLGEL PK LEMON YELLOW 1044	COLGEL PK SIGNAL RED 1018	COLGEL PK OCHER 1084

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ISO 9001  
ISO 14001  
BUREAU VERITAS  
Certification



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