



2024
EDITION

THERMOSET RESINS FOR COMPOSITES

 **HELIOS** RESINS



HELIOS RESINS

HAS BEEN

PROVIDING

FLEXIBLE,

HIGH-QUALITY

AND **RELIABLE**

COMPOSITE

SOLUTIONS

SINCE 1964.



GOLDEN RESINS

Today, Helios Resins produces around 70,000 tons of liquid resins annually, including coating and composite resins. Our coating resin brands – DOMOPOL, DOMACRYL, DOMALKYD, DOMEMUL and DOMOPUR, and composite resin brands – COLPOLY, COLVINYL and COLGEL – have achieved 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 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 are able to meet the most rigorous and complex needs and demands of our customers.

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)
COLPOLY 724 – series	OPA	42	1.5	60
COLPOLY 733 – series	DCPD	38	2.5	65
COLPOLY H 738-95	Hybrid VE/DCPD	39	3.0	70
COLPOLY 752 – series	OPA	42	2.5	85
COLPOLY 780 – series	IPA	44	3.5	85
COLVINYL VE 101 AT	VE	46	4.5	80

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

PRODUCT	CHEMICAL NATURE	REACTIVE MONOMER CONTENT (%)	ELONGATION AT BREAK (%)	TENSILE STRENGTH (MPa)
COLPOLY 722 – series	OPA	43	2.5	70
COLPOLY 781 – series	IPA/NPG	41	3.0	65



HDT (°C)	REMARKS
65	Preaccelerated, thixotropic, LSE, low peak temperature, promoted.
65	Preaccelerated, thixotropic, LSE, low peak temperature, promoted, Lloyd's approval (without LSE).
105	Preaccelerated, thixotropic, barrier coat.
105	Preaccelerated, thixotropic, LSE, low peak temperature, promoted.
85	Preaccelerated, thixotropic, medium thix index, chemical resistant, LSE version on request, Lloyd's approval.
105	Preaccelerated, thixotropic, barrier coat.

HDT (°C)	REMARKS
75	Preaccelerated, thixotropic, LSE, low peak temperature, Lloyd's approval.
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)
COLPOLY 732 – series	DCPD	27-35	3.0	70
COLPOLY 733 – series	DCPD	32-34	2.5	60
COLPOLY 734 – series	DCPD	26	4.5–5.5	50
COLPOLY 7167	IPA/NPG	33	2.0	90
COLPOLY 7167-8A	IPA/NPG	33	2.0	90

RESIN TRANSFER MOULDING (RTM)

PRODUCT	CHEMICAL NATURE	REACTIVE MONOMER CONTENT (%)	ELONGATION AT BREAK (%)	TENSILE STRENGTH (MPa)
COLPOLY 7200 AI	DCPD	37	3.0	75
COLVINYL H 110 A-LP	VE	35–38	4.5–5.0	85–90
COLPOLY 749 VEX	OPA	36–38	1.0	52
COLPOLY 7524-03	DCPD	37	4.0	75
COLPOLY 7524/8	OPA	37	3.5	80

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

PRODUCT	CHEMICAL NATURE	REACTIVE MONOMER CONTENT (%)	ELONGATION AT BREAK (%)	TENSILE STRENGTH (MPa)
COLPOLY 757	OPA	36	2.0	40
COLPOLY 768	Maleic	32	1.5	60
COLPOLY 783	IPA	33	3.0	70
COLPOLY 7572	OPA	35	1.5	70
COLPOLY 7795	Maleic	35	2.0	40
COLPOLY LPA 2600	Saturated polyester	30	-	-



HDT (°C)	REMARKS
80	Artificial marble and onyx, various viscosities.
100	Artificial marble and onyx, polymer concrete, various viscosities.
	Marble casting applications, various viscosities.
105	Solid surface, contains methacrylic monomer.
105	Resin is recommended for quartz filled systems (Gebrüder Dorfner GmbH & Co.), contains methacrylic monomer, preaccelerated.

HDT (°C)	REMARKS
80	Rapid fill times, low viscosity, resistance to print-through, preaccelerated.
110	Low reactivity, excellent strength and toughness, low shrinkage, preaccelerated, good surface profile.
110	Vacuum expansion process, good surface profile, lightweight parts for transportation.
85	Excellent impregnation.
90	Excellent impregnation.

HDT (°C)	REMARKS
115	High resistance to heat deformation, compatible with LP additives.
120	Low shrink SMC/BMC application.
105	High crack resistance, high resistance to heat deformation, high viscosity and high reactivity.
120	High resistance to heat deformation, compatible with LP additives.
130	Basic resin for LS formulation.
-	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)
COLPOLY 7310A-80	DCPD	40	2.0–3.0	65–70
COLPOLY 7331 LV	DCPD	37	2.5	65
COLPOLY 736 WAT	DCPD	38	2.5	60

CONTINUOUS LAMINATING

PRODUCT	CHEMICAL NATURE	REACTIVE MONOMER CONTENT (%)	ELONGATION AT BREAK (%)	TENSILE STRENGTH (MPa)
COLPOLY 720 S-L	OPA	37	1.5–2.5	65–75
COLPOLY 721 S	DCPD	36	3.5	60
COLPOLY 739 S	DCPD	32	2.5	60



HDT (°C)	REMARKS
70	Preaccelerated, low viscosity, good adhesion to acrylics (especially PMMA).
70	Formulated to be filled with mineral fillers, preaccelerated, LSE (possible non LSE version on request), good adhesion on PMMA.
85	White pigmented, accelerated, thixotropic, LSE, formulated to be filled with mineral fillers, good adhesion on ABS and PMMA.

HDT (°C)	REMARKS
70	Medium viscosity and reactivity, UV stabilized, continuous sheet curing with MIBK, discontinuous laminating with MEKP or APP.
80	Low viscosity, UV stabilised, good glass wetting, continuous sheet curing with MIBK, discontinuous laminating with MEKP or AAP.
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)
COLPOLY RP 7015/8	DCPD	35	2.5	60
COLPOLY 7558-02	OPA	35	3.0	70
COLPOLY 779	Maleic	36	1.5	35
COLPOLY 7800	IPA	35	4.5	90
COLVINYL VE 105 LV	VE	34	5.5	85

VACUUM INFUSION

PRODUCT	CHEMICAL NATURE	REACTIVE MONOMER CONTENT (%)	ELONGATION AT BREAK (%)	TENSILE STRENGTH (MPa)
COLPOLY 7200 AI-LV	DCPD	37	3.0	75
COLPOLY 7810 AI	IPA/NPG	41	3.0	65
COLPOLY H 7030 AI	VE/DCPD	45	2.5–3.5	65–70
COLVINYL VE 110 I	VE	38	4.5–5.0	85–90

FIRE RETARDANT RESINS

PRODUCT	CHEMICAL NATURE	REACTIVE MONOMER CONTENT (%)	ELONGATION AT BREAK (%)	TENSILE STRENGTH (MPa)
COLPOLY 7604 D	DCPD	25	2	70
COLPOLY 7605	DCPD	25	2.5	60
COLPOLY 7608	DCPD	33	3.0–3.5	65
COLPOLY 7609 FRI	DCPD	38	3.0	70



HDT (°C)	REMARKS
95	Medium reactive resin, good mechanical properties, good glass wetting.
100	Excellent mechanical properties, high impact strength, high HDT.
130	High resistance to heat deformation, high reactivity.
100	Fast through cure (possible different viscosity and solids content modified with LS additives etc.).
105	Optimal wetting of the glass fiber, good mechanical properties and excellent corrosion resistant, high HDT.

HDT (°C)	REMARKS
80	Rapid fill times, low viscosity, resistance to print-through, preaccelerated.
80	Rapid fill times, resistance to print-through, preaccelerated, Lloyd's approval.
90	Medium reactivity, excellent mechanical properties, preaccelerated resin.
110	Low viscosity, excellent corrosion resistant, low shrinkage, preaccelerated.

HDT (°C)	REMARKS
70	Pre-accelerated, non-halogenated thixotropic resin, DIN 5510 – Part 2 S4 SR2 ST2.
95	Intumescent fire retardant system of resin with COLGEL GC 647 approved according to EN 45545-2.
80	Preaccelerated, contains barrier-forming agents to reduce styrene emission and halogenated fire retardant resin, DIN 5510 – Part 2 S4 SR2 ST2.
75	Preaccelerated, low viscosity, contains halogenated fire retardant.

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FILAMENT WINDING

PRODUCT	CHEMICAL NATURE	REACTIVE MONOMER CONTENT (%)	ELONGATION AT BREAK (%)	TENSILE STRENGTH (MPa)
COLPOLY RP 7015/9	DCPD	30	2.5	70
COLPOLY 7166	IPA/NPG	40	4.5	60
COLPOLY 7543	OPA	35	3.5	75
COLPOLY 7854	IPA/TPA	40	4.0	90

BASE RESINS FOR GEL COATS, TOP COATS AND PIGMENT CONCENTRATES

PRODUCT	CHEMICAL NATURE	REACTIVE MONOMER CONTENT (%)	ELONGATION AT BREAK (%)	TENSILE STRENGTH (MPa)
COLPOLY 7100	Maleic	free	-	-
COLPOLY 7160	IPA/NPG	40	4.0	85
COLPOLY 7172	IPA	33	5.0	85

BONDING PASTES

bonding pastes of various chemical nature: VE, hybrid VE/DCPD, THPA for various applications: marine, transporting



HDT (°C)	REMARKS
85	Chemical resistance, low styrene content.
90	Excellent mechanical properties, high HDT, liner, adhesion on PVC.
90	Excellent mechanical properties, outstanding durability, chemical resistance.
100	Chemical resistance.

HDT (°C)	REMARKS
-	Grinding medium for pigment concentrates.
100	Base resin for gel coats, UV stabilised, Lloyd's approval.
95	Base resin for gel coats, Lloyd's approval.

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IV. GEL COATS, TOP COATS AND PIGMENT CONCENTRATES

GEL COATS AND TOP COATS

PRODUCT	SEGMENT	CHEMICAL NATURE	APPLICATION
COLGEL GC 100 series	General purpose	IPA or IPA/NPG	Spray or brush
COLGEL GC 200 series	Marine	IPA/NPG	Spray or brush
COLGEL GC 300 series	Sanitary	IPA/NPG	Spray
COLGEL GC 400 series	Transportation	IPA or IPA/NPG	Spray or brush
COLGEL GC 500 series	Tooling	VE	Brush
COLGEL GC 600 series	Special properties	IPA	Spray or brush
COLGEL TC 600 series	Special properties	IPA or IPA/NPG or VE	Brush

PIGMENT CONCENTRATES

MONO-PIGMENT CONCENTRATES	
COLGEL PK WHITE 1265	COLGEL PK VIOLET RL
COLGEL PK BLACK 1267	COLGEL PK BLUE 1108
COLGEL PK OXIDE BLACK	COLGEL PK CITRON YELLOW 1043
COLGEL PK VIOLET CQV	COLGEL PK LEMON YELLOW 1044



SHADE	REMARKS
Not pigmented or industrial white or RAL or custom-matched.	
Not pigmented or industrial white or RAL or custom-matched.	DNV approved.
Not pigmented or industrial white or RAL or custom-matched.	
Not pigmented or industrial white or RAL or custom-matched.	
Not pigmented or black.	
Not pigmented or industrial white or RAL or custom-matched.	E.g. fire retardant.
Not pigmented or industrial white or RAL or custom-matched.	Top coat product line.

COLGEL PK MELON YELLOW 1032	COLGEL PK ORANGE RED 1024
COLGEL PK SIGNAL YELLOW 1042	COLGEL PK OXIDE RED 1004
COLGEL PK GREEN 1158	COLGEL PK OXIDE RED 1007
COLGEL PK SIGNAL RED 1018	COLGEL PK OCHER 1084

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ISO 9001
ISO 14001
BUREAU VERITAS
Certification



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