



Gelcoat Plus



BÜFA®-Special products

Process Solutions



Special products



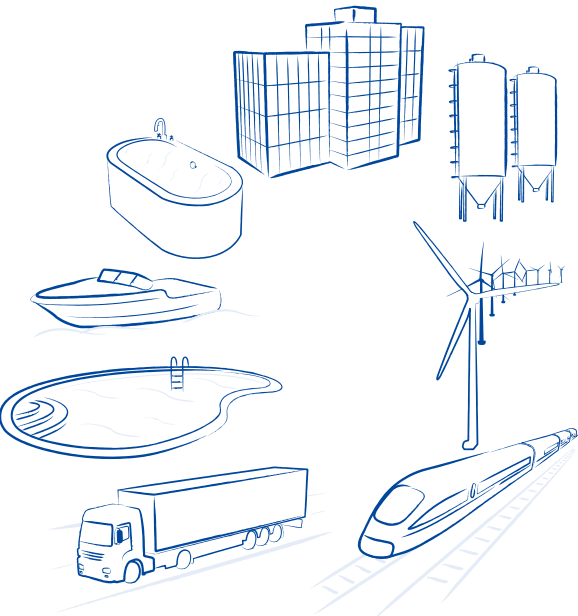


BÜFA®-Special Resins

Quality... that stands for the extensive BÜFA-assortment of special products. For tooling, reactivity control and primers/adhesion promotors our products help our customers in GRP processing. Using these special products results in easier processing, more flexibility and better product quality.



Special products



		Resin base	Application				Resin Properties			Recommendations/Comments
	Products		HLU	SU	VI / RTM	Casting	Resin base	Viscosity [mPas]	HDT [°C]	
Laminating resins	700-0044 – OLDOPAL-VE Laminating Resin A 430-01-TV	VE-based	✓	✓			VE	1600	105	Use if high chemical and mechanical properties or hydrolysis resistance is needed. Relining, tanks and chemical industry.
	700-0101 – OLDOPAL-Laminating Resin 101	ISO-NPG-based	✓	✓			ISO / NPG	1650	100	Use if high chemical and mechanical properties or hydrolysis resistance is needed. Relining, tanks, chemical industry and marine application.
	700-0102 – OLDOPAL-Laminating Resin 102	Ortho-based	✓	✓			Ortho	750	65	Can be used for the production of GRP moulded parts of the most various types. It is suitable for hand lay-up as well as spray lay-up processes. Good mechanical properties are combined with excellent working properties.
	700-0424 – OLDOPAL-UP Resin L 424-T	ISO-NPG-based	✓	✓			ISO / NPG	1350	107	Used in applications where high requirements are placed on resistance to water, chemicals and heat (container and plant construction, swimming pools, corrosion protection, sanitary installations).
	700-0425 – OLDOPAL-UP Resin L 425-T	ISO-based	✓	✓			ISO	1500	93	Used in resin components which have very good mechanical properties and little tendency to crack particularly when these properties are also required when in contact with water, e. g. in boat and container construction.
	700-0435 – OLDOPAL-Laminating Resin VE-V 0435	VE-based	✓	✓			VE			Is used for the production of mechanically high quality moulded parts that are used in application areas where high requirements are placed on chemical resistance (container and system construction, corrosion protection, hydraulic engineering/restoration of sewer systems). Laminates based on vinyl ester resins have not only outstanding resistance to long-term heat but are also highly resistant to dynamic loads.
	700-0597 – OLDOPAL-VE Resin TV	VE-based	✓	✓			VE	1100	134	Used for the production of high mechanical quality moulded parts that are subjected to stronger chemical and/or thermal loads, e.g. in chemical plants, apparatus and tank construction. Highly resistant to dynamic loads.
	700-9090 – OLDOPAL-Laminating Resin 9090	Ortho-based	✓	✓			Ortho	1400	104	The resin combines good mechanical with excellent working properties.
VI- / RTM- resins	700-0103 – BÜFA®-Injection Resin 700-0103 NV	Ortho-based			✓		Ortho	440	65	Especially developed for applications in marine construction when using VI processes.
	700-4360 – BÜFA®-VE Injection Resin	VE-based			✓		VE	225	105	Is used for the production of especially high quality moulded parts on which high requirements in regard to resistance to chemicals may be placed. Outstanding long-term heat resistance but are also highly resistant to dynamic loads.
	700-5000 – OLDOPAL-Injection Resin V filled	Ortho-based, highly filled			✓		Ortho	1000	not measured	Especially developed for applications in vehicle construction when using VI and RTM processes.
	700-6668 – BÜFA®-Injection Resin P80 X2	Ortho-based			✓		Ortho	500	90	Especially developed for applications in vehicle construction when using VI and RTM processes.
	710-0423 – OLDOPAL-P 80-21	Ortho-based			✓		Ortho	160	108	Good impregnation properties is used for the production of mechanically high quality moulded parts in injection procedure. Is used for producing artificial stone and polyester concrete, a high degree of filling is achieved.
Casting resins	700-0001 – OLDOPAL-UP Ornament Resin V	Ortho, elastified, lighthweight, door ornaments				✓	Ortho	2000	not measured	Is suitable for casting furniture ornaments, door panels, wood imitations, etc.
	700-0020 – OLDOPAL-UP Ornament Resin V elastic	Ortho, elastified, white light weight				✓	Ortho	2000	not measured	Is suitable for casting furniture ornaments, door fillings, imitation wood, etc.
	700-0105 – OLDOPAL-UP Resin 105	Ortho-based, polymerconcrete				✓	Ortho			
	700-0259 – OLDOPAL-UP Potting Compound V	ISO-based, highly filled				✓	ISO	19000	not measured	Is suitable for a number of potting applications in the GRP area when impact resistance and rapid cure are important.
	700-0804 – BÜFA®-Casting Resin Transparent	ISO elastified Transparent casting resin For casting transparent ornaments that look almost like glass				✓	ISO	600	not measured	Can be used for casting transparent ornaments that look almost like glass.
	700-1030 – OLDOPAL-Ornament Resin 0030	Ortho, elastified, door ornaments				✓	Ortho	16000	not measured	Is suitable for a number of casting applications for which little tendency to crack and high impact resistance is important. Used for the production of furniture ornaments, door fillings, imitation wood parts, etc.
Conductive systems	700-0262 – BÜFA®-VEU-Resin antistatic	VEU-based, chemical resistance	✓	✓			VEU	13000	132	Especially developed for the production of components that require a slight electrical surface resistance in a chemical surrounding.
	700-7850 – BÜFA®-VE Filament Winding Resin Conductive	ISO-NPG-based	✓	✓			VEU	2600	133	Especially developed for the production of filament wound pipes which require a low electrical surface resistance.
Reinforcement of acrylic parts	700-0451 – OLDOPAL-UP Resin S-451-T	Ortho-based	✓	✓			Ortho	1200	63	Developed for GRP reinforcement of thermoformed sanitary elements made of PMMA. Thanks to its low exothermic character, laminates up to 10 mm thickness can be produced in one working operation.
	700-0112 – BÜFA®-ACR 0112	Ortho-based	✓	✓			Ortho	1000	63	Developed for GRP reinforcement of thermoformed sanitary elements made of PMMA. After the addition of chalk (50 parts by weight ACR 0112 plus 40 parts by weight chalk), it has a very low exothermic character. Laminates up to 10 mm thickness can be produced in one working operation.
Special resin types	700-0410 – OLDOPAL-UP Resin A 410-I	ISO-NPG-based, to be cured with light	✓		✓		ISO / NPG	850	107	Used for the production of moulded parts that are of high mechanical quality that must meet especially high requirements in regard to chemical resistance and dielectric properties (tank and plant construction, corrosion protection, boat construction and the electrical industry). The consistent use of OLDOPAL-UP-Resin A 410-I reduces styrene pollution at the workplace.



BÜFA®-Tooling Specials

Quality... that stands for the extensive BÜFA-assortment of special products. For tooling, reactivity control and primers/adhesion promotors our products help our customers in GRP processing. Using these special products results in easier processing, more flexibility and better product quality.



Special products



Modelling

740-0001 BÜFA®-Fine-Filler

- Repair putty, specially for FRP
- Apply by spatula
- Long geltime
- Good for use in tooling application
- Cure with ketonperoxide
- Excellent sanding and filling properties

740-0002 BÜFA®-Spray Filler

- Repair putty, specially for FRP
- Spray applied
- Fast geltime
- Good for use in tooling application
- Cure with ketonperoxide
- Excellent sanding and filling properties
- Very good for levelling and texture repair

740-0068 BÜFA®- POLYESTERGLAS P 68 G

- Repair putty, specially for FRP
- Spatula applied
- Fast geltime
- Cure with keton and benzeone peroxide
- Excellent sanding and filling properties

740-0004 OLDOPLAST-Plasticine

- Grey modelling paste
- Based on natural wax
- Pigment and solvent free
- For filling or sculpturing

740-1982 BÜFA®-Mould Building Paste

- Low shrink mould building paste
- Gap filling properties
- Good repair quality
- Cured with keton peroxide

722-1958 BÜFA®-VU-Barriercoat-SV

- Filled resin formulation in a spray-ing consistence pre-accelerated
- Based on a vinyl ester resin type epoxy bisphenol A urethane
- Used as a second layer of gelcoat between gelcoat and laminate as a barrier against shrinkage marks and osmosis
- Used for GRP parts that are subjected to high chemical and/or thermal loads

Mold Release and Cleaning

741-0052 OLDOPAL-Release Lacquer natural

- Spray applied
- Results in brilliant and tough PVA-film
- Consumption: 30-70 g/m²
- Drying time: 15 minutes
- Good releasing properties

741-0054 OLDOPAL-Release Paste

- Secure releasing properties
- Common used for the first time release
- Closes micro pores in the mould
- Suitable for GRP, wood and plaster surfaces

741-0063 OLDOPAL Liquid Release Wax

- Use for producing UP and EP resin mouldings in complicated
- Moulds made of plastic, wood, gypsum, etc.
- Is used as an additional aid to ensure reliable demoulding in combination with BÜFA release laquer
- Applied first, before the layer of Release Lacquer is applied

741-0070 OLDOPAL-Release Agent for Metal Moulds

- Excellent release properties
- Suitable for metal and glass
- Clean release, leaves no residue behind
- Easy to apply

742-0596 OLDOPAL-Mould Cleaner 3125

- High effective mould cleaner
- Good smell
- Degreases and solves resin residues and wax
- Suitable for GRP, Epoxy, Metal and Glass moulds

BF-Series (Polishing and Mould Release)

022-0050 BF 50 Buffing-Polishing Paste extra strength

- Especially heavy duty buffing and polishing paste
- Usable after working with a grinding paper (800 grain size)
- Free of silicone, ammonium and waxes
- Can be worked by hand as well as by machine (up to 2100 rpm)
- Used for removing scratches and buffing marks

022-0100 BF 100 Buffing-Polishing Paste medium fine

- Combination of extra fine and medium fine abrasive particles with excellent polishing properties
- The paste is free of silicone, ammonium and waxes
- Can be worked by hand or by machine
- Repairing, maintaining and preparing GRP moulds and finished parts
- Weathered gelcoat surfaces, oxidised varnishes, etc. can be polished to high gloss again

022-0150 BF 150 Polishing Paste extra fine

- Combination of extra fine polishing particles
- Free of silicone, ammonium and waxes
- Can be worked by hand or by machine.
- High gloss polishing applications when repairing, maintaining and preparing GRP moulds, finished parts or PU paints.
- After pre-treatment with BF 50 and BF100, optimal high gloss surfaces in moulds or on mouldings are achieved

022-0500 BF 500 Liquid Release Wax

- Silicone- and toluene-free wax dispersion
- Replaces the loss of wax that occurs with each demoulding
- Smoothes slight unevenness and maintains or reinstates high gloss on mould surfaces
- Double function of not only supplying release agent but also as a gentle cleaner for the most various types of residue on the mould (resin, gelcoat, polystyrene/wax build-up
- Ideal combination with BF 700

022-0700 BF 700 Release Wax Paste

- Release paste based on carnauba-wax
- No pre-release effects
- Fast drying time
- For new moulds: 6-7 applications in a period of 1-2 hours, possible to laminate the next day

022-0800 BF 800 High Temperature Release Wax

- Release paste based on carnauba-wax for high temperatures
- No pre-release effects
- Fast drying time
- For new moulds: 6-7 applications in a period of 1-2 hours, possible to laminate the next day

Please find further information about BÜFA®-Tooling-Gelcoat and BÜFA®-Tooling-Resin for mould making in the brochure BÜFA®-Tooling-System.

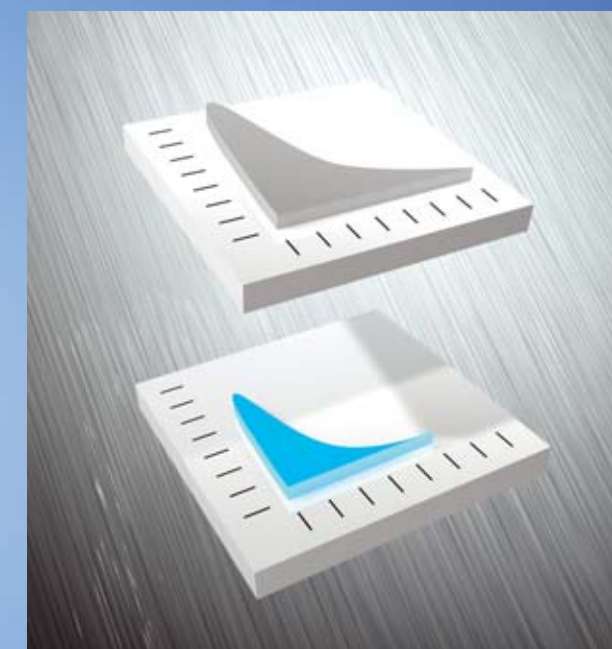
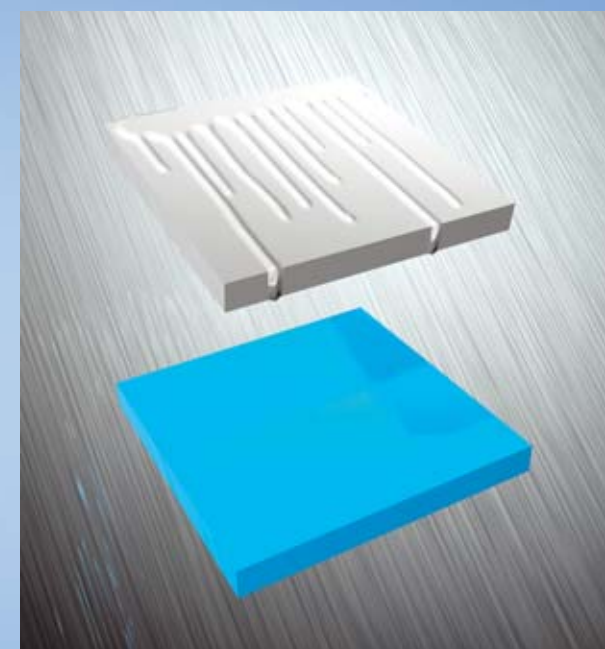
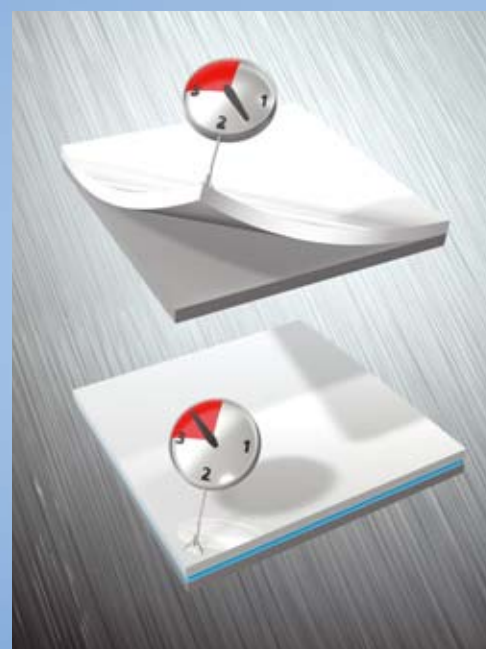


BÜFA®-Special Additives

Quality... that stands for the extensive BÜFA-assortment of special products. For tooling, reactivity control and primers/adhesion promoters our products help our customers in GRP processing. Using these special products results in easier processing, more flexibility and better product quality.



Special products



REACTIVITY CONTROL

Co. -Accelerators:

742-0062 OLDOPAL-Co-Accelerator 1%,
742-0065 OLDOPAL-Co-Accelerator 4%,
742-0600 OLDOPAL-Co-Accelerator 6%,
742-0072 OLDOPAL-Co-Accelerator 10%,
742-0022 OLDOPAL-Co-Accelerator 10%, BTX-free

- Accelerates curing
- Use for curing of UP and VE resins
- Low content of softening additives
- To be combined with ketonperoxides
- Easy dosing because of low concentration

Amin-Accelerators:

742-0060 OLDOPAL-DMA Accelerator 10%,
742-0083 OLDOPAL-DEA Accelerator 10%,
742-0084 OLDOPAL-DMPT Accelerator 10%,
742-0090 OLDOPAL-DEAA Accelerator 10%

- Boots curing
- Use for curing of UP and VE resins
- Improves curing at high humidity and low temperatures
- To be combined with benzoene peroxide
- Easy dosing because of low concentration

Accelerator Complex:

742-0064 OLDOPAL-Accelerator Complex 64,
742-0070 OLDOPAL-Accelerator Complex 70,
742-5002 OLDOPAL-Accelerator Complex 5002,
742-0399 BÜFA®-Accelerator 0399

- Accelerates and boost curing
- Use for curing of UP and VE resins
- To be combined with ketonperoxides
- Easy dosing because of low concentration

Inhibitor Solutions:

740-0085 OLDOPAL-Inhibitor Solution L 585

- Increases geltime Ready to use solution
- Use for cobalt accelerated systems
- Use for UP and VE resins

Additives:

742-0008 OLDOPAL-ADDITIV 008

- Decerases the peak exotherm
- Softer curing behaviour

ADHESION PROMOTORS

742-0074

OLDOPAL-Wood Bonding Agent

- Improves bonding strength
- Also suitable for concrete and core materials
- Ready to use solution
- Low viscosity, fast to apply

742-0078

BÜFA® -Polymer Concrete Bonding Agent

- Improves mechanical properties in concrete applications
- Better adhesion on glass fibres

742-0079

OLDOPAL-Metal Bonding Agent

- Improves bonding strength
- Also suitable for ceramics and glass consumption
- Ready to use solution
- Low viscosity, fast apply

700-0122

OLDOPAL-UP Primer Resin V

- Improves bonding strength on PVC
- Based on a polyester resin

722-0033

BÜFA®-ACRYL-Bonding Agent-V natur

- Improves bonding strength on acrylic sheets
- Based on flexibilised polyester resin

RHEOLOGYMODIFIER

742-0016

OLDOPAL-Thix Destroyer

- "Thix Destroyer"
- Dispersion additive to optimize the flow behaviour of gelcoats
- Also usable for viscosity reduction with styrene as a diluent
- Dosage level between 0,2 and 0,5%

742-0018

OLDOPAL-Viscosity Reducer

- Styrenefree additive on a base of special polymers diluted in MMA for reducing of the viscosity
- Very good in use with highly filled resin systems, especially fire retardant systems
- Dosage level 1-2% on resin content
- Preparing directly before usage

740-0007

OLDOPAL-UP-Thixpaste

- Paste to thixotrop a base resin for easier application
- Based on a special mixture of organic and inorganic thixotropic agents with unsaturated orthophthalic acid polyester resin dissolved in styrene
- Better processable than working with powder additives, e.g. fine-particle silica

742-0013

OLDOPAL-Spray Thinner

- Ready to use solution for viscosity reduction in spray application of gelcoats
- Dosage level between 0,5 and 2%

LOW STYRENE EMISSION

742-0056

OLDOPAL-Paraffin Solution 5%

- „Millieu addtive“ – 5% -Paraffin Solution in styrene and xylene
- Tackfree curing of UP-resins
- Effect is possible for temperatures between 18 - 27°C

742-0082

OLDOPAL-Paraffin Solution 10%

- „Millieu addtive“ – 10% -Paraffin Solution in styrene and xylene
- Tackfree curing of UP-resins
- Effect is possible for temperatures between 18 - 27°C

742-0077

OLDOPAL-Skin Forming Agent

- Reducing of styrene emissions in HLU- and SU- process
- Not suitable for VE- and DCPD-resins
- Dosage level 0,5 – 2% on resin content
- Overlaminating after max. 4 h
- Not suitable with internal mold release agents



Innovative specialities for the composite industry



BÜFA Gelcoat Plus GmbH & Co. KG

Hohe Loohe 2-8
26180 Rastede
GERMANY
Phone +49 4402 975-0
Fax +49 4402 975-300
gelcoatplus@buefa.de
www.buefa.com
www.buefagelcoatplus.com

A company of BÜFA and DSM Composite Resins

The information given above is based on our current state of knowledge and experience. In view of the many factors that may influence working conditions and the application of our products, the user is not relieved from carrying out his own tests and experiments. Not legally binding warranty of certain properties or suitability for a particular purpose can be derived from this information. It is the responsibility of the receiver or user of the products to observe proprietary rights as well as existing laws and regulations. The latest version of the corresponding EU safety data sheet must also be observed.

You'll find technical data sheets and further information at
www.buefagelcoatplus.com.