



borchers

Additives, Driers, Accelerators and Catalysts

for Coatings, Paints, Composites,
Printing Inks and Adhesives



Borchi® OXY-Coat



Wetting and Dispersing Additives



Flow and Leveling Additives



Rheological Modifiers



Defoamers and Air Release



Anti-Skinning Agents



Specialties



Driers



Composites



Catalysts



BORCHI® OXY-COAT

Borchi® OXY-Coat is a patented line of curing additives for all types of oxidatively drying, oil modified coatings. Borchi® OXY-Coat products are cobalt-free and give excellent performance at low levels. Improvements with respect to drying activity, color, gloss and haze in coatings have been noted when comparing Borchi® OXY-Coat to Cobalt based driers.

Borchers Additive	Application	Chemistry	Description
Borchi® OXY-Coat	W/S	Iron complex dissolved in PG	This cobalt-free catalyst is excellent for coatings that cure oxidatively including resins based on renewable resources; enhanced properties compared to cobalt; dissolved in propylene glycol.
Borchi® OXY-Coat 1101	W/S	Iron complex dissolved in water	Borchi® OXY-Coat 1101 is a VOC-free version of Borchi® OXY-Coat. This cobalt-free catalyst is excellent for coatings that cure oxidatively including resins based on renewable resources; enhanced properties compared to cobalt; dissolved in water.
Borchi® OXY-Coat 1310	S	Iron complex dissolved in solvent mixture	This cobalt-free catalyst is excellent for coatings that cure oxidatively including resins based on renewable resources; enhanced properties compared to cobalt; dissolved in 10:1 DPM: propylene glycol blend.

* W = Waterborne, S = Solventborne

HELPFUL TIPS:

Borchi® OXY-Coat and Borchi® OXY-Coat 1310 for Cobalt Drier Replacement in Solvent-Based Systems

All resin systems are unique and will require the level of Borchi® OXY-Coat to be optimized for best cost and dry. To start:

- For every 100 units of Resin Vehicle Solids in your formula, add 0.5 to 3 units of Borchi® OXY-Coat as supplied as one of the last ingredients in your formula. Test at various levels, keeping in mind that too much Borchi® OXY-Coat might inhibit through dry.
- In pigmented formulas, use a calcium drier in the pigment dispersion phase of your formula to prevent Borchi® OXY-Coat adsorption after long term storage. No calcium drier is necessary in clear coatings.
- As with cobalt driers, Borchi® OXY-Coat based formulas may need auxiliary driers for improved through dry. Driers based on Zirconium (0.2 – 0.6% metal based on vehicle solids) provide the best through dry. Standard MEKO Anti-Skin is not effective with Borchi® OXY-Coat. Instead, use Asciniin 0444 at 0.2 to 0.6% by weight based on the total weight of the system. A very small amount of MEKO might also be added to prevent in-can skinning if your coating is filled in larger containers which have more head space.

Borchi® OXY-Coat contains propylene glycol. **Borchi® OXY-Coat 1101** is 1% in water only. **Borchi® OXY-Coat 1310** contains a solvent blend designed for aliphatic and aromatic solvent-based coatings, particularly clears and varnishes.

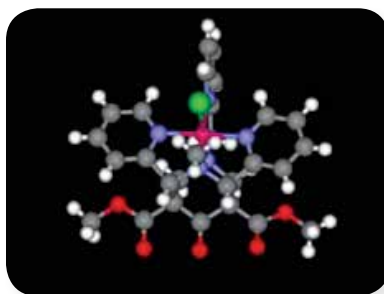
HELPFUL TIPS:

Borchi® OXY-Coat and Borchi® OXY-Coat 1101 for Cobalt Drier Replacement in Water-Based Systems

All resin systems are unique and will require optimizing the level of Borchi® OXY-Coat for best cost and dry. To start:

- For every 100 units of Resin Vehicle Solids in your formula, add 0.5 to 3 units of Borchi® OXY-Coat as supplied as the last ingredient in your formula. Test at various levels keeping in mind that too much Borchi® OXY-Coat might inhibit dry.
- In pigmented formulas, use a calcium drier in the pigment dispersion phase of your formula to prevent Borchi® OXY-Coat adsorption after long term storage. No calcium drier is necessary in clear coatings.
- As with Cobalt driers, Borchi® OXY-Coat based formulas may need auxiliary driers for improved through dry. Zirconium driers at 0.2 – 0.6% metal based on vehicle solids can improve hardness and decrease through dry times.

Standard MEKO Anti-Skin is not effective with Borchi® OXY-Coat. Although not common in a water-based system, if an anti-skin is needed, use Ascinin 0445 at 0.2 to 0.6% by weight based on the total weight of the system. A very small amount of MEKO might also be needed to prevent in-can skinning if your coating is filled in larger containers that have more head space.



Patented Borchi® OXY-Coat molecule



WETTING AND DISPERSING ADDITIVES

The Borchers line of wetting and dispersing agents includes products for a full range of pigments from the most difficult to disperse pigments, such as carbon black and perylene pigments, to easier pigments such as TiO₂ and iron oxides. Several products are 100% active and can be used universally in waterborne and solventborne coatings.

Borchers Additive	Application	Chemistry	Description
Pigment Wetting Agents			
Borchi® Gen 0851	W	Polyurethane	50% in water; VOC-free; APEO-free; tin-free; non-ionic. For dispersing organic pigments in high performance coatings systems. Excellent for carbon black and perylene pigments.
Borchi® Gen 1253	W	Solution of acrylic ester copolymers	40% active in water; VOC-free; APEO-free; anionic. For dispersing organic and inorganic pigments in wood, architectural and industrial coatings and pigment concentrates; especially designed for dispersing and stabilizing TiO ₂ .
Borchi® Gen SN 95	W	Polyurethane	25% active in water; non-ionic. For dispersing organic pigments in high performance coatings.
Borchi® Gen WNS	W	Low molecular weight polyether modified compounds	90% active in water; VOC-free; APEO-free; non-ionic. For dispersing organic pigments, and pigment granulates in aqueous paints and printing inks.

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For more information, please visit www.borchers.com or call 800-321-9696.

Borchers Additive	Application	Chemistry	Description
Pigment Wetting Agents (<i>continued</i>)			
Borchi® Gen DFN	W/S	Low molecular weight polyether modified compounds	100% active; VOC-free; APEO-free; non-ionic. For dispersing organic pigments in waterborne and solventborne systems.
Borchi® Gen 12	W/S	Low molecular weight polyether modified compounds	100% active; VOC-free; APEO-free; non-ionic. For dispersing inorganic pigments in waterborne and solventborne coatings and pastes.
Borchi® Gen 0650	W/S	Amine neutralized phosphoric acid ester	100% active; VOC-free; anionic; APEO-free. For dispersing all pigment types for water and solvent based pigment pastes.
Borchi® Gen 0451	W/S	Polyurethane	100% active; VOC-free; APEO-free; non-ionic. Excellent for dispersing organic pigments for pigment concentrates as well as high performance automotive, industrial and UV coatings. Excellent for carbon black.
Borchi® Gen 1252	W/S	Acrylic ester copolymer	100% active; VOC-free; APEO-free; nonionic/anionic depending on the pH (anionic at pH >7). For dispersing organic and inorganic pigments in wood, architectural and industrial coatings and pigment concentrates; especially designed for dispersing and stabilizing TiO ₂ .
Borchi® Gen 0755	W/S	Polyurethane	100% active; VOC-free; APEO-free; non-ionic. Excellent compatibility in solventborne universal grinding resins based on aldehyde-ketone, hydrocarbon, alkyd and polyester resins. For universal pigment pastes, solventborne and waterborne coatings and printing inks.
Borchi® Gen 911	S	Modified polyester	70% active in white spirits; non-ionic. For solventborne coatings and printing inks based on alkyd resins.
Borchi® Gen 1051	S	Polyurethane	45% active in BAC/MPA; non-ionic. Designed for high quality automotive and industrial coatings, pigment concentrates with organic pigments especially phthalo blue and green.
Borchi® Gen 1251	S	Polyurethane	85% in MPA; non-ionic. For high quality automotive and industrial coatings as well as pigment concentrates and carbon black.
Borchi® Gen 1459	S	Solution of polycarboxylic acid polymer and polysiloxane copolymer in xylene	50% active; APEO-free; non-ionic. For medium to high polarity solvent based coatings to control flocculation of TiO ₂ with other pigment types.
Borchi® Gen 1451	S	Polyurethane	30% active in EGDA; APEO-free; non-ionic. Excellent for dispersing organic pigments as well carbon blacks in high performance automotive and industrial coatings.
Borchi® Gen 1452	S	Polyurethane	45% active in EGDA; APEO-free; non-ionic. Excellent for dispersing organic pigments as well carbon blacks for pigment concentrates.
Spurso®	S	Modified alkyd resin	70% Active in mineral spirits; dispersing agent for all pigments in coatings based on alkyd resins.
Gelling Agents/Swelling Agents			
Borchi® Gen PB 60	S	Mixture of phosphoric acid esters and fatty acids	50% active in solvent mixture. Activates inorganic swelling agents.
Borchi® Gel 1420	S	Solution of polycarboxylic acid amides	52% active in solvent mixture. Rheology enhancing additive for organo clays and fumed silicas in solvent based systems.

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FLOW AND LEVELING ADDITIVES

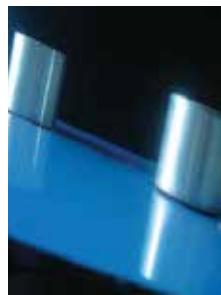
Line of highly compatible polydimethyl siloxane (PDMS) additives reduces the surface tension of the coating to improve flow, substrate wetting and deaeration. This is particularly important in high performance polyurethane coatings.

Borchers Additive	Application	Chemistry	Description
Leveling/Slip			
Borchi® Gol 1570	W	Polyether modified polysiloxane (PDMS)	100% active; VOC Free. Improves substrate wetting of coatings on non-polar and dirty surfaces. Improves the color development of iron oxide pastes. Prevents crater and pinhole formation.
Borchi® Gol 1375	W/S	Silicone-free mixture of ethoxylated alcohols and surfactants	VOC-free; APEO-free. For improved substrate wetting of hydrophobic or dirt/oil contaminated surfaces.
Borchi® Gol LA 2	W/S	Solvent-free polyether modified polysiloxane (PDMS)	100% active; VOC-free; flow and leveling agent with additional slip properties; excellent compatibility. Recoatable if used as directed.
Borchi® Gol LA 50	W/S	Polyether modified polysiloxane (PDMS)	50% in dipropylene glycol monobutyl ether; excellent substrate wetting agent for non-polar or dirty substrates.
Borchi® Gol LA 200	W/S	Solvent-free polyether modified polysiloxane (PDMS)	100% active; VOC-free. For improved flow and slip enhancement; excellent air release agent for 1K and 2K polyurethanes.
Borchi® Gol LA 232	W/S	Solvent-free polyether modified polysiloxane (PDMS)	100% active; VOC-free. For improved slip, flow and leveling; excellent for 1K and 2K waterborne polyurethanes.
Borchi® Gol 3467	W/S	Solvent-free polyether modified polysiloxane (PDMS)	100% active; VOC-free. For promoting substrate wetting of hydrophobic surfaces to prevent poor flow and craters.
Borchi® Gol OL 44	W/S	Solvent-free polyether modified polysiloxane (PDMS)	100% active; VOC-free; lower silicone content flow promoter with maximum compatibility and no impact on intercoat adhesion. Good for air and forced dried finishes and industrial coatings.
Borchi® Gol OL 17	W/S	Solvent-free polyether modified polysiloxane (PDMS)	100% active; VOC-free; universal flow promoter with very good compatibility; improves slip and prevents cratering.
Borchi® Gol LAC 80	W/S	Solvent-free polyether modified polysiloxane (PDMS)	100% active; VOC-free; highest silicone content flow promoter; generates slip.
Borchi® Gol 1473	W/S	Solvent-free polyether modified polysiloxane (PDMS)	100% active; VOC-free; universal flow promoter with very good compatibility; improves slip and prevents cratering.
Borchi® Gol 1474	W/S	Solvent-free polyether modified polysiloxane (PDMS)	100% active; VOC-free; universal slip, flow and leveling promoter for automotive, industrial, architectural and UV cured coatings; prevents cratering and improves mar resistance.
Borchi® Gol H 250	S	Phenyl modified polysiloxane (PDMS)	50% active in xylene/butanol; promotes flow; stable to 250°C. Used for high-heat applications.
Borchi® Gol PL	S	Solvent-free phenyl modified polysiloxane (PDMS)	100% active; VOC-free; promotes flow; stable to 300°C.
Borchi® Gol 1376	S	Solvent-free phenyl modified polysiloxane (PDMS)	100% active; VOC-free; promotes flow; stable to 300°C.
Borchi® Gol 3451	S	Dimethyl polysiloxane (PDMS)	20% in xylene. Highest molecular weight; highest degree of incompatibility. For hammer finishing effects.
Borchi® Gol LA 6	S	Polyether modified polysiloxane (PDMS)	12% active in xylene; promotes substrate wetting; flow and leveling properties; reduces sliding friction without loss of intercoat adhesion.

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BORCHERS PDMS BASED SURFACE TENSION MODIFYING ADDITIVES:

Substrate Wetting	Flow & Leveling	Surface Slip	Defoaming/ Air Release	Hammer Finish
Borchi® Gol 1570	Borchi® Gol OL 17	Borchi® Gol LA 2	Borchi® Gol LA 200	Borchi® Gol 3451
Borchi® Gol LA 50	Borchi® Gol OL 44	Borchi® Gol LA 232	Borchi® Gol 0011	
Borchi® Gol LA 6	Borchi® Gol 1473	Borchi® Gol LAC 80	Borchi® Gol 1171	
Borchi® Gol 3467	Borchi® Gol H 250	Borchi® Gol LA 6		
	Borchi® Gol PL	Borchi® Gol 1474		
	Borchi® Gol 1376			



Molecular Weight →



RHEOLOGY MODIFIERS

Line of rheological additives are products designed for architectural as well as industrial coatings.
Many of these products have been developed to meet regulations for more environmentally friendly coatings.

Borchers Additive	Application	Chemistry	Description
Polyurethane (PU) Based Associative Thickeners			
Borchi® Gel 0620	W	Low shear/very strongly pseudoplastic	40% PU; 40% solids in water/butyl glycol; APEO-free; emulsifier-free; tin-free. Minimizes sagging and settling. Good rheology modifier for spray applications. For brush and roll applications, use in combination with Borchi® Gel 0434 or 0435.
Borchi® Gel 0621	W	Low shear/very strongly pseudoplastic	20% PU; 30% solids; VOC-free; APEO-free; tin-free. Minimizes sagging and settling. Good rheology modifier for spray applications. For brush and roll applications, use in combination with Borchi® Gel 0434 or 0435.
Borchi® Gel PW 25	W	Low shear/strongly pseudoplastic	25% PU; 25% solids in water/propylene glycol; emulsifier-free; organo tin-free. Promotes flow and leveling.
Borchi® Gel LW 44	W	Low shear/strongly pseudoplastic	24% PU; 46% solids in water; VOC-free; APEO-free; organo tin-free. For industrial coatings; promotes pigment wetting.
Borchi® Gel 0625	W	Medium shear/pseudoplastic	25% PU; 34% solids; VOC-free; APEO-free; tin-free. Compatible in many resin systems including waterborne alkyd resins. Promotes both medium and high shear rheology.
Borchi® Gel L 75 N	W	Medium shear/pseudoplastic	25% PU; 50% solids; VOC-free; APEO-free; organo tin-free. Compatible in a broad range of applications including PUDs. Promotes pigment wetting and pigment stabilization. Promotes both medium and high shear rheology.
Borchi® Gel 0626	W	Medium shear/pseudoplastic	25% PU; 37% solids; VOC-free; APEO-free; tin-free. Promotes both medium and high shear rheology.
Borchi® Gel THIX 921	W	Low shear/pseudoplastic	25% PU; 32% solids; APEO free, organo tin free. Compatible in many applications including Industrial, Architectural and Adhesives. Prevents sagging and settling and promotes flow in spray applications.
Borchi® Gel 0434	W	High shear/newtonian	20% PU; 20% solids; VOC-free; APEO-free. ICI adjuster and improves anti-sag in architectural, general industrial and wood coatings.
Borchi® Gel 0435	W	High shear/newtonian	30% PU; 50% solids; APEO-free. Improves flow of all architectural and industrial coatings with and without pigments.
Non-Associative Thickeners			
Borchi® Gel A LA	W	Low shear/strongly pseudoplastic	10% anionic acrylate polymer in water; APEO-free, tin-free. Thickens at pH > 8; works well with PUDs.
Borchi® Gel PN	W	Low shear/strongly pseudoplastic	Organic zirconium complex neutralized with ammonia. VOC-free, APEO-free, emulsifier-free. Aqueous solution; highly effective in preventing sagging and settling.
Borchi® Gel NA	W	Low shear/strongly pseudoplastic	Organic zirconium complex neutralized with sodium hydroxide; low odor. VOC-free, APEO-free, emulsifier-free. Aqueous solution; highly effective in preventing sagging and settling issues.
Borchi® Set 134	S	Low shear/strongly pseudoplastic	Organo clay. 25% active in modified alkyd resin and solvent mixture. Ideal to prevent settling of dense pigments like barium sulfate and zinc.
Borchi® Gel 1420	S	Solution of polycarboxylic acid amides	52% active in solvent mixture. Rheology enhancing additive for organo clays and fumed silicas in solvent based systems.

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DEFOAMERS AND AIR RELEASE

Line of deaeration and antifoaming agents help eliminate foam in the production process as well as provide air release in the applied film. The Borchi® products are highly effective in the development of high solids and waterborne coatings for the industrial market.

Borchers Additive	Application	Chemistry	Description
Defoamer/Air Release			
Borchers® AF 0871	W	Modified organo polysiloxane with hydrophobic particles	20% active. Foam control additive. Needs high shear to incorporate. Long term efficacy. For waterborne industrial and architectural coatings.
Borchers® AF 0550	W	Mineral oil with hydrophobic particles	>99% active. Highly efficient; general purpose.
Borchi® Gol LA 200	W/S	Polyether modified polysiloxane	100% active; VOC-free. Flow promoter with some slip enhancement. Excellent air release in 1K and 2K waterborne polyurethane systems.
Borchers® AF 1171	W/S	Modified polysiloxane with hydrophobic particles	>98% active; VOC-free. For waterborne, solventborne and solvent-free systems; particularly suited for aqueous decorative and general industrial coatings. Effective for removing air in the mill base, during filling and application.
Borchers® AF T	W/S	Silicone-free tri-n-butyl-phosphate	Defoaming agent for pigment pastes and other highly loaded systems.
Borchers® AF 1270	S	Fluorinated organo-modified polysiloxane	2% active in butyl acetate. Defoaming and air release agent with anti-cratering properties for epoxies, unsaturated polyesters, alkyds, 2K PU and UV systems.
Borchi® Gol E2	S	Silicone-free hydrocarbon resins	100% active. Leveling and air release agent for use in solventborne industrial wood and high build general industrial coatings.
Borchi® Gol 0011	S	Polysiloxane modified preparation of fatty acid esters	100% active. Flow promoter and air release agent for solventborne systems; highly compatible. Very effective in high solids and high film build systems including polyureas and polyurethanes.
Borchi® Gol 1470	S	Silicone-free solution of foam destroying polymers	37% non-volatile. Air release agent for solventborne and solvent-free industrial, architectural, automotive and wood coatings systems.
Borchi® Gol 1471	S	Silicone-free solution of foam destroying polymers	20% non-volatile. Air release agent for highly thixotropic solventborne and solvent-free industrial, architectural, automotive and wood coatings systems.

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ANTI-SKINNING AGENTS

Anti Skin line of antioxidants contain new MEKO-free products as well as conventional products for alkyd coatings.

Borchers Additive	Application	Chemistry	Description
Ascinin® Anti Skin 0445	W/S	Aminic compound dissolved in 1,2-propanediol	Phenol-free, MEKO-free anti-skinning agent. Recommended for use with the Borch® OXY-Coat series.
Ascinin® Anti Skin 0444	S	Aminic compound dissolved in fatty acid ester	Phenol-free, MEKO-free anti-skinning agent. For high solids, VOC-reduced and environmentally friendly coatings. Recommended for use with the Borch® OXY-Coat series.
Skin® #2	S	Methylethyl ketoxime	MEKO, fast evaporating anti-skinning agent.
Ascinin® Anti Skin 1240	S	Aminic compound dissolved in fatty acid ester	MEKO-free anti-skinning agent. Recommended for use with the Borch® OXY-Coat series. More volatile than other Ascinin anti-skinning agents.
Borch® Nox 1640	S	Cyclohexanone oxime	MEKO replacement. Fast evaporating anti-skinning agent. Can be used with the Borch® OXY-Coat series.



SPECIALTIES

Specialties line of additives contains essential products for coatings formulations. These include, among others: moisture scavengers, adhesion promoters and nano-silica dispersions.

Borchers Additive	Application	Chemistry	Description
Moisture Scavenger			
Additive OF	S	Triethyl ortho formate	100% active moisture scavenger; improves storage stability of 1K and 2K PU systems.
Additive TI	S	P-toluene sulfonyl isocyanate	100% active moisture scavenger for dehydrating pigments and solvents in the production process of 1K and 2K PU systems. Reacts quickly.
Adhesion Promoter			
Borch® Gen HMP-F	W/S	Oil-free polyester resin	80% active in solvent mixture; improves adhesion to metal in reactive coatings. Especially suitable for baking finishes. (Can and Coil coatings).
Borch® Gen HE	S	Oil-free polyester resin	60% active in xylene; improves adhesion and long term elasticity of coatings on metal substrates and adhesion of metallic pigments in paints. Especially suitable for baking finishes.
Borchers® H 1480	S	Silicone-free polyester solution	60% active in xylene; promotes adhesion to metal surfaces for 1 and 2K industrial coatings and baking finishes.
Anti-blocking Agents			
Borch® Coll 10	W	Colloidal dispersion of silica	30% active in water; particle size 9nm; best transparency and effectiveness; maximum matting effect.
Borch® Coll 20	W	Colloidal dispersion of silica	30% active in water; particle size 18nm; low matting effect.
Borch® Coll 30	W	Colloidal dispersion of silica	30% active in water; particle size 35nm; maximum compatibility and low matting effect.
Others			
Regulator ZL	S	Acidic cation exchanger	Pot life stabilizer for 2K PU systems with alkaline extenders. Supplied in powder form. For thick film applications.
Bayoxide® Z active	W/S	Zinc Oxide	Highly dispersed zinc oxide; 100%; barrier agent against wood ingredients or nicotine; stabilizer in chloroprene based adhesives; UV absorber; powder

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COBALT DRIER

COBALT is the most important metal drier for curing coatings based on drying oils and alkyd resins. It is required to shorten the surface drying of coatings, varnishes, stains and inks and, in combination with a secondary drier such as zirconium, aluminum or zinc, will result in uniform drying of the paint film.

Family	Application	Chemistry	Concentrations Available
Hydro-Cure®	W/S	Neodecanoate / Octoate	5% (II), 10% (IV)
Ten-Cem®	S	Neodecanoate	12%
Hex-Cem®	S	Octoate	6%, 12%
Cem-All®	S	Blend of Synthetic Acids	6%, 12%
Nap-All®	S	Napthenate	6%
For Inks			
Cem-All® PI	S	Blend of Synthetic Acids	12%
Lin-All® PI	S	Tallate	6%



MANGANESE DRIER

MANGANESE is the second most effective metal after Cobalt in making metal carboxylate driers for surface dry in oxidatively-cured systems. It also promotes through dry but can be used with Cobalt and secondary driers like zirconium, aluminum or zinc for complete drying of the paint film.

Family	Application	Chemistry	Concentrations Available
Hydro-Cure®	W/S	Neodecanoate	5%, 9% (III)
Borchers® Dry 0411HS US	W/S	Enhanced Neodecanoate	7%
Hex-Cem®	S	Octoate	12% LC
For Inks			
Lin-All® PI	S	Tallate	6%



ZIRCONIUM DRIER

ZIRCONIUM is a highly efficient secondary drier. Zirconium driers are the most common secondary driers improving through dry in oxidatively-cured coatings primarily by the formation of coordination bonds when hydroxyl and carboxyl groups are present.

Family	Application	Chemistry	Concentrations Available
Hydro-Cem	W/S	Octoate	12%
Hex-Cem®	S	Octoate	12%, 18%, 24%

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CALCIUM DRIER

CALCIUM is an auxiliary drier that is used solely in combination with primary and secondary driers. It can also be used as a pigment-wetting agent to prevent loss of surface dry by preferentially being absorbed by pigments.

Family	Application	Chemistry	Concentrations Available
Hydro-Cem	W/S	Octoate	5%
Hex-Cem®	S	Octoate	5%
Cem-All®	S	Blend of Synthetic Acids	6%, 8%, 10%



ZINC DRIER

ZINC is a secondary drier that improves the through drying and hardness of the paint film. It can also be used to wet out pigments. Zinc is always used in combination with primary driers (Cobalt, Manganese, Borch® OXY-Coat and Vanadium compounds).

Family	Application	Chemistry	Concentrations Available
Ten-Cem®	S	Neodecanoate	18%
Hex-Cem®	S	Octoate	12%, 18%, 22%
Cem-All®	S	Blend of Synthetic Acids	16%
Nap-All®	S	Napthenate	10%, 14.5%



IRON DRIER

IRON is a primary drier that provides oxidative surface curing in coatings. It is efficient only in elevated curing systems such as baking enamels. Use in dark colors only.

Family	Application	Chemistry	Concentrations Available
Hex-Cem®	S	Octoate	12%

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DRIER RECOMMENDATIONS

Drier Package Recommendations - % Metal based on Vehicle Resin Solids.

Product	Borchi® OXY-Coat 1310	Cobalt Ten-Cem®	Manganese Hex-Cem®	Zirconium Hex-Cem®	Calcium Cem-All®	7% AOC E	Potassium Hex-Cem®	Dri-Rx® HF
Solvent Based Binder								
Long - High Solids		0.04				0.3		0.1
Cobalt-Free	0.5-3.0			0.2	0.15			
Long		0.06		0.15	0.25			0.2
Cobalt-Free	0.5-3.0				0.2		0.1-0.2	
Medium		0.04		0.15	0.05			0.1
Cobalt-Free	0.5-1.0			0.2	0.15			
Short		0.05		0.1	0.05			
Cobalt-Free	0.5-1.0							
Silicone Modified		0.04		0.03				0.2
Cobalt-Free	0.5-1.0			0.2	0.15			
Urethane Modified		0.04		0.1				0.2
Cobalt-Free	0.5-1.5							
Chain Stopped		0.08		0.4	0.1			
Cobalt-Free	0.5-2.0				0.2			
Drying Oils		0.02	0.02		0.05			
Cobalt-Free	0.5-2.0			0.3	0.1			
Epoxy Ester		0.04	0.04					0.02
Cobalt-Free	1.0-2.0				0.1			
Product	Borchi® OXY-Coat 1101	Cobalt Hydro-Cure® IV	Manganese Hydro-Cure® III LC	Zirconium Hydro-Cem	Calcium Hydro-Cem	Dri-Rx® HF		
Water Based Binder								
Water Dispersible Alkyd		0.05			0.7	0.03		0.1
Cobalt-Free	0.3-1.0				0.3	0.15		0.1
Alkyd Emulsions:								
Long		0.07			0.2	0.15		0.1
Cobalt-Free	0.5-3.0				0.2	0.2		
Medium		0.05			0.2	0.2		
Cobalt-Free	0.5-1.0							
Short		0.04				0.1		
Cobalt-Free	0.5-1.0							
Urethane Modified		0.05			0.2			
Cobalt-Free	0.5-2.0							
Chain Stopped		0.04				0.2		
Cobalt-Free	0.5-3.0							
Drying Oils		0.04	0.04		0.3	0.15		
Cobalt-Free	0.5-2.0				0.1			

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COMPOSITES

Promotes polymerization of unsaturated polyester resins by decomposing peroxides at room temperature to crosslink polyester resins.

Product	Application	Chemistry	Description
Accelerators			
12% Cobalt Hex-Cem®	S	Octoate	Promotes room temperature polymerization of unsaturated polyester and vinyl ester resins.
12% Cobalt Ten-Cem®	S	Neodecanoate	Promotes room temperature polymerization of unsaturated polyester and vinyl ester resins.
6% Cobalt Nap-All®	S	Naphthenate	Promotes room temperature polymerization of unsaturated polyester and vinyl ester resins.
12% Cobalt Catalyst 510	S	Octoate	Promotes room temperature polymerization of unsaturated polyester and vinyl ester resins, imparts less color than traditional cobalt accelerators.
Controller			
21% Cobalt Hydroxy Ten-Cem®	S	Neodecanoate	Premium “feeder-type” agent correcting gel-time drift of unsaturated polyester and vinyl ester resins.
Enhancer			
Poly-Cure® 503	S	Blend of metals	Low color, less gel-time drift, lower cost.
15% Potassium Hex-Cem®	S	Octoate	Synergistic promoter with cobalt; good for color critical applications; contributes to reductions in gel-time drift.
15% Potassium Hex-Cem® Water White	S	Octoate	Colorless potassium; synergistic promoter with cobalt; good for color critical applications; contributes to reductions in gel-time drift.
12% Manganese Cem-All®	S	Blend of synthetic acids	Good reactivity and low color; controls cracking and imparts less brittleness of resin; primary accelerator at elevated temperature.
8% Copper Nap-All®	S	Naphthenate	Controls exotherm to reduce surface cracks; known to add shelf stability to unsaturated polyester resins.
CUR-Rx®	S	Octoate	Promotes cumene hydroperoxide cure systems; can accelerate cure of some unsaturated polyester and vinyl ester resins at low temperature.
10% Calcium Cem-All®	S	Blend of synthetic acids	Dispersant for pigmented systems, especially color-sensitive systems.
2% Lithium Ten-Cem® WS	W/S	Neodecanoate	Esterification catalyst for synthesis of polyester and alkyd resins; produces lighter color resins; also helps control molecular weight and product viscosity.
Dibutyltin Dilaurate	S	Laurate	Esterification catalyst for the production of unsaturated polyester resins.
Interface Actives/Air Release			
Borchi® A-111	S	Silicone-free solution of foam destroying polymers	38% active; High efficiency general purpose air release - Silicone-free.
Borchi® A-1377	S	Silicone-free solution of foam destroying polymers	20% active; Air release for highly thixotropic systems with fiber wetting characteristics - Silicone-free.

* W = Waterborne, S = Solventborne

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In this brochure you will find an overview of our additives for coatings, paints, composites, printing inks and adhesives.

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