



Additive Selection Chart L-AG 1.3

Heavy Duty Coatings

November 2015



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	Epoxies (Solvent-borne, HS, 100 %)	PU, Polyaspartics, Fluorocarbons (FEVE)	Polysiloxanes	Aqueous Systems (AC, EP, PU,)	Alkyds	Chlorinated Rubber, Vinyl Resins, TPA	Ethyl Silicates
Wetting and Dispersing of Fillers and Pigments (Anti-flooding, Anti-floating)	BYK-9076 DISPERBYK-2152 ANTI-TERRA-U 100 DISPERBYK-142	DISPERBYK-2155 DISPERBYK-2163 BYK-9076 DISPERBYK-118 DISPERBYK-2152	BYK-9076 DISPERBYK-2152 DISPERBYK-111	ANTI-TERRA-250 DISPERBYK-194 N DISPERBYK-199 DISPERBYK-2010	DISPERBYK-108 DISPERBYK-142 DISPERBYK-118 DISPERBYK-2055 DISPERBYK-2152	DISPERBYK-118 DISPERBYK-142 DISPERBYK-180 DISPERBYK-2155	ANTI-TERRA-U DISPERBYK-103 DISPERBYK-118
Anti-settling, Anti-sagging	BYK-430 GARAMITE-7305 ADVITROL-100 BYK-7410 ET TIXOGEL-MP TIXOGEL-MP 250 RHEOTIX-240	GARAMITE-1958 TIXOGEL-MP 250 BYK-430 BYK-7410 ET	BYK-7410 ET	OPTIFLO-M 2600 VF OPTIFLO-T 1000 BYK-7420 ES OPTIGEL-CK OPTIGEL-WX	GARAMITE-1958 TIXOGEL-MP BYK-7411 ES TIXOGEL-MP 100	GARAMITE-1958 TIXOGEL-MP BYK-7411 ES TIXOGEL-MP 100	GARAMITE-1958
Improving Rheology Effect of Organo Clays and Pyrogenic Silica	ANTI-TERRA-204* BYK-405 BYK-R 607				ANTI-TERRA-204* BYK-405 BYK-R 607	ANTI-TERRA-204* BYK-405 BYK-R 607	
Defoaming/ Air Release (silicone-free)	BYK-052 N BYK-1790 BYK-054 BYK-392 BYK-1794	BYK-054 BYK-1790 BYK-052 N BYK-392 BYK-1794	BYK-052 N BYK-054	BYK-015 BYK-1711 BYK-1640 BYK-1710	BYK-052 N BYK-054	BYK-052 N BYK-054	BYK-052 N
Defoaming/ Air Release (silicone-based)	BYK-085 BYK-A 530 BYK-066 N BYK-088	BYK-066 N BYK-088 BYK-085	BYK-085	BYK-028 BYK-093 BYK-017 BYK-1780	BYK-066 N BYK-A 530	BYK-077	BYK-323
Substrate Wetting	BYK-310 BYK-3550 BYK-300 BYK-323	BYK-310 BYK-323	BYK-320	BYK-347 BYK-349 BYK-346 BYK-348	BYK-310 BYK-3550	BYK-310	BYK-DYNWET 800 N
Flow, Leveling	BYK-320 BYK-378 BYK-361 N	BYK-361 N	BYK-358 N	BYK-3455 BYK-DYNWET 800 N BYKETOL-WS	BYK-320 BYK-354	BYK-361 N	BYK-3550
Adhesion	BYK-4511 BYK-4510	BYK-4510 BYK-4512**		BYK-4513 BYK-4500 BYK-4512	BYK-4510 BYK-4500	BYK-4500	

^{*} Additives with higher amine value can cause viscosity increase when used in the epoxy part

Definition:

Heavy Duty Coatings

- Applied at high film builds
- To provide exceptional durability and resistance to particularly aggressive environments

Protective Coatings

- Industrial plant equipment
- Bridges and other on-shore structures

Marine Coatings

- Ships and submerged
- marine installations
- Other off-shore constructions

BYK offers a selection of additives assisting the paint technologist in formulating heavy duty coating systems whether it be the primer, the base coat, top coat or any other part of the protective coating system. The table above displays a variety of binders/paints used within a protective coating system and gives a starting point, which

Typical Substrates:

Steel is prone to corrosion and needs heavy duty protection when installed in demanding environments like:

- Ship hulls and off-shore drilling rigs, exposed to salt water, oxygen, light and fouling organisms.
- Railcars and ship cargo holds exposed to abrasive or corrosive cargoes.
- Pipelines, exposed to abrasion from within and weather or ambient soil conditions outside.
- Bridges, storage tanks and grain silos, pipework in chemical plants.

Concrete also requires heavy duty coating protection when exposed to adverse conditions:

- Deicing salts, oil, fuels, chemical spills and other contamination on roadways and bridges
- Acid attack from atmospheric carbon dioxide and airborne contaminants in chemical plants.
- Impact and abrasion on road surfaces, industrial floors.

BYK additives are to be used in order to adjust the paint properties accordingly. Product names in bold are the **first recommendations**, whereas the other products listed may also be used depending on the individual paint formulation (fillers, pigments, solvents etc.).

^{**} Influence on pot-life

For more information about our additives and instruments, as well as our additive sample orders please visit:

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