BASF
We create chemistry

Developing together. Building with each other.

We create chemistry for advanced construction.

Construction Additives


HyCon S 3200 F
Vinapor DF 9010 F
Starvis 3070 F

BASF Construction Additives and Formulation Know-How for Construction Materials

To achieve groundbreaking formulations providing outstanding workability and physical properties, your system needs advanced raw materials.

The properties of construction materials, such as dry mortars or mastic systems, are influenced by the quality of local raw materials. Therefore, interactions between organic and inorganic binders, fillers and a range of chemical additives need to be controlled to ensure the best performance of the system.

We create chemistry for advanced formulations: a broad range of powder and liquid additives which enable you to formulate innovative products.

Our application-focused technical experts in our laboratories support you in optimizing your formulations and choosing the right raw materials.

Additionally, we provide you with the right solution for your specific raw materials and special local requirements.

We especially support you in:

Repair Systems and Infrastructure

Flowable Systems
- Self-levelling underlayments
- Cementitious and calcium sulphate-based screeds
- Non-shrink grouts

Non-sag Applications
- Cement-based ceramic tile adhesives
- Exterior insulation and finishing systems (EIFS / ETICS)
- Plasters, renders & skim coats

Flowable Systems

	Product	Chemistry / Appearance	Applications / Type of Formulation							Properties
			Cementitious mortars					Calcium sulphate based mortars		
			Self-levelling underlayments	Flowing floor screeds	Self-levelling overlayments / Industrial floors	Conventional floor screeds (non flowable)	Non-Shrink grouts / Machinery grouts	Self-levelling underlayments	Flowing floor screeds	
	Superplasticizers									
	Melflux® 2641 F	Polycarboxylic Ether / Powder	□	□	□		□			Long flow retention (open time), high early strength development
	Melflux® 2651 F	Polycarboxylic Ether / Powder	■	■	■		■			Allround product, high early strength development
	Melflux® 4930 (FM version available)	Polycarboxylic Ether / Powder	■	■	■		■			Fast dispersing effect, benefit for machine application (short mixing)
	Melflux® 5581 F	Polycarboxylic Ether / Powder	■	■	■		■	■		High early strength development, very useful for hemihydrate based SLUs
	Melflux® 6681 F	Polycarboxylic Ether / Powder	■		■					Very fast dispersing effect, benefit for machine application (very short mixing)
	Melflux® AP 101 F	Polycarboxylic Ether / Powder		□	□		■			Very useful for cementitious grouts with low viscosity, cementitious flowable screeds
	Melflux® BF 11 (FM version available)	Polycarboxylic Ether / Powder		■			■			Very good slump retainer
	Melflux® SELECT 1032 F	Polycarboxylic Ether / Powder		■					■	PCE optimized for flowing floor screeds, high surface quality and clay robustness
	Melflux® SELECT 2120 F	Polycarboxylic Ether / Powder	■		■		□			Optimized for ternary binder systems, med. retardation (CAC / OPC / HH resp. AH)
	Melflux® SELECT 4411 F	Polycarboxylic Ether / Powder	■		■					Optimized for ternary binder systems (CAC / OPC / HH resp. AH), high retardation
NEW	**Melflux® SELECT 5421 F**	Polycarboxylic Ether / Powder	□	■	□		□	■	■	Clay tolerant PCE / Best used in compounds with varying clay contents
	Melflux® SELECT 5731 F	Polycarboxylic Ether / Powder	■	■	■		□			Optimized for calcium sulphoaluminate cement (CSA) based systems
NEW	**Melflux® SELECT 6030 F**	Polycarboxylic Ether / Powder	■		■					Allows for lithium reduced ternary formulations / Fast mixing, ageing & temperature robustness / Combination with HyCon® R 3660 F essential for success
NEW	**Melflux® SELECT 6160 F**	Polycarboxylic Ether / Powder	■		■					Allows for lithium reduced ternary formulations / Fast mixing, ageing & temperature robustness / Combination with HyCon® R 3660 F essential for success
	Melment® F 10	Melamine-Condensate / Powder	□	□	□		□		□	Allround product
	Melment® F 10 G	Melamine-Condensate / Powder							□	Optimised for gypsum
	Melment® F 15 G	Melamine-Condensate / Powder							■	Optimised for gypsum, long open time, low formaldehyde content
	Melment® F 17 G	Melamine-Condensate / Powder							■	Optimised for gypsum, lower formaldehyde content
	Melment® F 245	Melamine-Condensate / Powder	■	■	■		■			Strongest dispersing effect (dosage efficiency and water reduction)
	Melment® F 4000 (FM version available)	Melamine-Condensate / Powder	□	□	□		■			Enhanced dispersing effect (dosage efficiency & water reduction)
	Stabilizers									
	Starvis® 3003 F	High molecular weight polymer / Powder	■	□	□		□	□	□	Excellent self-healing / Very high water retention / Optimized for water adsorbing substrates
	Starvis® 3040 F	High molecular weight polymer / Powder	■	■	■		■	■	■	Very low viscosity when applied & pumped / Minimal pumping resistance / Optimized for screw mixing pumps
	Starvis® 3050 F	High molecular weight polymer / Powder	■	■	■		■	■	□	Low viscosity when applied & pumped / Improved water retention / Optimized for screw mixing pumps
	Starvis® 3070 F	High molecular weight polymer / Powder	■	□	□			■		Excellent self-healing / Ideal balance between high water retention and high workability

	Product	Chemistry / Appearance	Applications / Type of Formulation							Properties
			Cementitious mortars					Calcium sulphate based mortars		
			Self-levelling underlayments	Flowing floor screeds	Self-levelling overlayments / Industrial floors	Conventional floor screeds (non flowable)	Non-Shrink grouts / Machinery grouts	Self-levelling underlayments	Flowing floor screeds	
	Defoamers									
	Vinapor® DF 2922 F (former FoamStar® PB 2922)	Silicon free defoamer blend / Powder	■	■	■		■	■	■	High defoaming efficiency / Prevents air entrainment during mixing / Highly compatible with pigments & fillers
	Vinapor® DF 2941 F (former FoamStar® PB 2941)	Mineral oil on inorganic carrier / Powder	■	■	■		■	■	■	Excellent defoaming at low temperature / Prevents air entrainment during mixing / High dosage robustness
	Vinapor® DF 9010 F	Fatty alcohol alkoxylates and polysiloxanes on inorganic carrier / Powder	■	■	□		■	■	□	Very high defoaming efficiency / Strong bulk and surface defoaming / Ideal for smooth and hard surfaces
NEW	**Vinapor® DF 9015 F**	Fatty alcohol alkoxylates on inorganic carrier	■	■	■		■	■	■	Easy handling & easy to dose / High raw material compatibility
NEW	**Vinapor® DF 9040 F**	Fatty alcohol alkoxylates, mineral oil & polysiloxanes on inorganic carrier	■	■	□		■	■	□	Temperature robust / Allround / Strong surface defoaming / Max efficiency
NEW	**Vinapor® DF 9041 F**	Fatty alcohol alkoxylates & mineral oil on inorganic carrier	■	■	■		■	■	■	Temperature robust / Allround / High raw material compatibility / Max efficiency
	Additives for conventional cementitious floor screeds									
	Melvis® C 4212 F	Water Reducing Agent / Powder				■				Strong water reduction, strong shrinkage reduction, faster drying
	Melvis® C 9100 F	Water Reducing Agent / Powder				■				Very strong water reduction, strong shrinkage reduction, very fast drying
	Hydration Control Additives									
	HyCon® R 3100 F	Modified polymer / Powder	■	■	■			□	□	Selective retardation of hemihydrate in binary (OPC-rich / HH) systems
	HyCon® S 3200 F	C-S-H seeding / Powder	■	■	■	□	■			Acceleration of systems based on OPC and increase of early strength development by C-S-H seeding technology
NEW	**HyCon® R 3660 F**	Modified polymer / Powder	■		■					Retarder allows for lithium reduced ternary formulations / A combination with Melflux® SELECT 6030 F / 6160 F is essential for success
	HyCon® S 7042 F	C-S-H seeding / Powder	■	■	■	□	■			Alkali free accelerator of OPC based on C-S-H seeding technolgy, improved early strength
	HyCon® S 7100 L	Aequeous suspension of C-S-H seeds / Liquid	□	□	□		□			Acceleration of systems based on OPC and increase of early strength development by C-S-H seeding technology
	HyCon® R 7200 F	Modified polymer / Powder						■	■	Retardation of setting of hemihydrate systems and binary (HH-rich / OPC) systems
	HyCon® A 7600 F	C-S-H seeding / Powder				■				Specially designed accelerator for inorganic binders containing mainly GGBFS, improves hydration rate of GGBFS at early times and late times, alkali free
	Shrinkage Control Additives									
NEW	**CureStar® SRA 8710 F**	Alkyl alkoxylate	□	■	□		■			Effective drying shrinkage reduction / Low VOC / High raw material compatibility / Excellent powder quality
NEW	**CureStar® ICA 5920 F**	Fatty alcohol ethoxylate	□	■	□				□	Prevents plastic shrinkage / Easy to apply internal curing concept / Makes external curing obsolete

■ = recommended □ = suitable

Non-sag Applications

	Product	Chemistry / Appearance	Applications / Type of Formulation									Properties
						Plasters & Renders						
			Ceramic Tile Adhesives Cementitous 1C Cem	**Tile Grout** Cementitous	**EIFS / ETICS** Cementitous	Cementitious / Lime	Gypsum based	Top-Coat / Decorative Coat	Skim coats	Monocouche Systems	Masonry Mortars	
	Wetting and Workability Agents											
	Melflux® grades	Polycarboxylic Ether	□	□	□							
	Melment® F 10 / F15G / F17G	Melamine-Condensate / Powder	■	■	□	■	■	□	□	■	■	Improved mixing
	Vinapor® WA 2000 F	Keton Resin			■	■	■	■	■	■	■	Improved workability; Micro air voids; Creamy rheology
	Vinapor® WA 3710 F	Non-ionic surfactant (EO / PO block-copolymere (on carrier)		□	□	■	■	■	■	■	■	Good Weeting; Improved workability; Robust stabile air voids
NEW	**Vinapor® WA 3810 F**	Non-ionic surfactant (polyether based, on carrier)	■	■	■	■	■	■	■	■	■	Improved mixing speed and enhanced mortar workability
	Vinapor® WA 3918 F	Non-ionic surfactant (Oleo-alkyleneoxide-block copolymer on carrier)		■		□	■	■	■	■	■	Excellent dispersing and wetting properties; Marked viscosity reduction; Increases color development and stability in pigmented systems
	Starvis® SE 25 F	Cationic Starch Ether/Powder	□	□	■	■	■	■	□	■	■	Stickness reduction; Little influence on consistency; No cement retardation
	Rheology Modifying Agents											
	Starvis® 308 F	Synthetical Polymer / Powder	□	□	□	□	■		□	□		Rheology improvement, water retention, no retardation
	Starvis® S 3911 F	Synthetical Polymer / Powder	■	■	■	■		□		□	□	Swellable polymer for open time and sag resistance improvement, workability improvement
	Starvis® SE 30 F	Starch Ether / Powder	■	■	■	■	■	■	■	■	■	Sag resistance introduction, workability approvement
	Starvis® SE 35 F	Starch Ether / Powder	■	■	■	■	■	■	■	■	■	Sag resistance introduction, workability approvement
	Starvis® SE 45 F	Starch Ether / Powder	■	■	□	□		□		□		Efficient sag resistance introduction, low retardation
	Starvis® RS 421/01 F	Synthetical Polymer / Powder	■	□						□	□	Efficient thickening compound for basic CTA; Open time and sag resistance improvement
	Starvis® T 50 F	Synthetical Polymer / Powder	■		□	□	□			□		Very efficient sag resistance introduction
	Air entraining Agents											
	Vinapor® AE 3912 F	Anionic surfactant (Sodium lauryl sulphate)				■	■			□	■	High performing foaming agent, produces particularly fine, stable air bubbles
	Vinapor® AE 3914 F	Anionic Surfactant Composition	□		■	■	□	■	□	□	■	Fully synthetic robust air entrainer, introduces stable air
	Defoamers											
	Vinapor® DF 9010 F	Fatty alcohol alkoxylates and polysiloxanes on inorganic carrier / Powder		■								Very efficient defoaming effect, easy dosing, low VOC (useful for EMICODE® EC-1, RAL-UZ 113 conform)
	Vinapor® DF 2922 F	Silicone free defoamer blend / Powder		■								Lowest Air-Entrainment during mixing, Excellent defoaming, suitable for formulations complying with BFR XIV (drinking water approval for DE)
	Vinapor® DF 2938 F	Polyether derivative of fatty acid on inert carrier		■								General purpose defoamer
	Vinapor® DF 2941 F	Mineral oil based / Powder		■								General purpose defoamer, RAL-UZ 113 conform
	Hydration Control Additives											
	HyCon® S 3200 F	C-S-H seeding / Powder	□	■	□	□			■	□		Acceleration of systems based on OPC and increase of early strength development by C-S-H seeding technology, slight dispersing effect
	HyCon® S 6100 F	C-S-H seeding / Powder	■	□	□	□			□	□		Acceleration of systems based on OPC and increase of early strength development by C-S-H seeding technology, higher viscosity for sag resistance
	HyCon® S 7100 L	Aequeous suspension of C-S-H seeds / Liquid	□	□								Acceleration of systems based on OPC and increase of early strength development by C-S-H seeding technology
	HyCon® S 7042 F	C-S-H seeding / Powder	■	■	■	□			□	□	□	Alkali free accelerator of OPC based on C-S-H seeding technolgy, improved early strength
	HyCon® A 7600 F	C-S-H seeding / Powder	■		□							Specially designed accelerator for inorganic binders containing mainly GGBFS, improves hydration rate of GGBFS at early times and late times, alkali free
	HyCon® R 6450 F	Synthetical Polymer / Powder	■	■								Retarder for ternary binder systems with improved storage and temperature resistancy

Repair Systems and Infrastructure

Product	Chemistry / Appearance	Applications / Type of Formulation					Properties
		Reinforcement Protection	Repair Mortar Flowable	Repair Mortar Sag Resistant	Smoothening Compounds / Fine Filler	Mortar Bonding Emulsion	
Superplasticizers / Wetting Agents							
Melflux® 4930 F	Polycarboxylic Ether / Powder		■	■	■		Water reducer; Higher System Strength; Improved mixing; Universal Dispersant and recommended for OPC binder
Melflux® SELECT 5731 F	Polycarboxylic Ether / Powder		■	■			Water reducer; Higher System Strength; Only for CSA Cement based systems
Melflux® SELECT 4411 F	Polycarboxylic Ether / Powder		■	■			Water reducer; Higher System Strength; Only for CAC Cement based ternary systems
Melment® F 10	Melamine-Condensate / Powder		■	■	□		Wetting Aid; Water Reduction; Improved Bonding; Improved mixing
Vinapor® WA 3710 F	Surfactant on inorganic carrier	■	■	■	■	■	Wetting Aid; Improved Bonding; Improved mixing
Rheology Modifying Agents and Internal Curing							
Starvis® S 3911 F	Waterswellable Polymer		■	■	■		Internal curing and reduction of crack formation; Improved freeze / Thaw resistance and durabilty; high sag resistance
Starvis® S 5514 F	Waterswellable Polymer		■				Internal curing and reduction of crack formation; Improved freeze / Thaw resistance and durabilty; for flowable repair mortar
Starvis® RS 421/01 F	Synthetical Polymer / Powder			■	■		Internal curing and reduction of crack formation; Improved freeze / Thaw resistance and durabilty; highest sag resistance; additional water retention
Starvis® 3040 F	High molecular weight polymer / Powder		■				Stabilizer for flowable Repair Mortar; Prevents bleeding and segregation, optimised for thick layer systems
Defoamers							
Vinapor® DF 2922 F	Silicone free defoamer blend / Powder	■	■	■	■	□	Lowest Air-Entrainment during mixing, Excellent defoaming, suitable for formulations complying with BFR XIV (drinking water approval for DE)
Vinapor® DF 2938 F	Polyether derivative of fatty acid on inert carrier	□	□	□	□	□	General purpose defoamer
Vinapor® DF 2941 F	Mineral oil on inorganic carrier / Powder	■	■	■	■		General purpose defoamer, RAL-UZ 113 conform
Vinapor® DF 9010 F	Fatty alcohol alkoxylates and polysiloxanes on inorganic carrier / Powder	■	■	□	■	■	Fast defoaming and deaerating properties, easy dosing
Hydration Control Additives							
HyCon® S 3200 F	C-S-H seeding / Powder		■	■	■		Acceleration of systems based on OPC and increase of early strength development by C-S-H seeding technology, slight dispersing effect
HyCon® S 7100 L	Aequeous suspension of C-S-H seeds / Liquid					■	Acceleration of systems based on OPC and increase of early strength development by C-S-H seeding technology
HyCon® S 7042 F	C-S-H seeding / Powder		■	■	■	■	Acceleration of systems based on OPC and increase of early strength development by C-S-H seeding technology
HyCon® A 7600 F	C-S-H seeding / Powder		■	■		■	Specially designed accelerator for inorganic binders containing mainly GGBFS, improves hydration rate of GGBFS at early times
HyCon® R 6450 F	Synthetical Polymer / Powder		■	■	■		Retarder for CSA or CAC Cement based ternary binder systems with improved storage and temperature resistancy

■ = recommended □ = suitable

Center of Competence and Brands

BASF Construction Additives GmbH, Trostberg, Germany

Construction Additives
- CureStar®
- HyCon®
- Melflux®
- Melment®
- Melvis®
- Starvis®
- Vinapor®

® = registered trademark of BASF

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