

# Developing together.

We create chemistry for  
advanced construction.

**Raw Materials and Solutions  
for Prefabricated Products**



 **BASF**

We create chemistry

## Developing together.

### Recipes and ingredients for advanced building products.

Prefabricated products, such as gypsum wallboards or cement (fiber) boards are highly developed products that require complex industrial production processes.

Chemical additives used in such systems impact both the final product as well as the production process in both positive and negative ways.

To get the highest performance from these chemical additives, a careful balance is necessary to achieve both physical performance parameters as well as economic processing conditions.

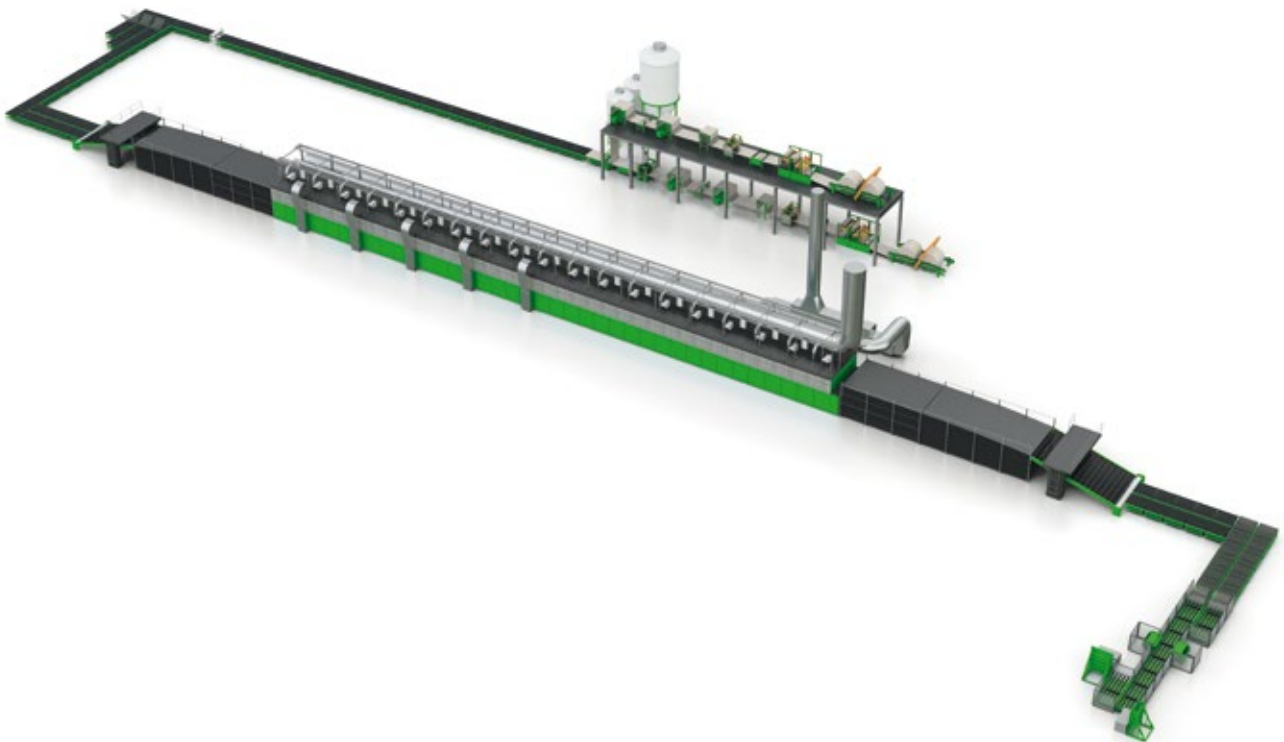
BASF recommends ingredient adjustments to maximize the finished product as well as the process in order to meet all requirements.

Testing and evaluating new products directly on the line is in most cases highly risky and expensive. BASF has developed testing methods that simulate standard production process.

This approach can help you choose the right combination of ingredients, which have the highest probability of success to meet your requirements before moving on to costly production plant trials.

#### **BASF offers solutions, chemical raw materials and technical service for**

- Gypsum Wallboards
- Gypsum and Cement (Fibre) Boards
- Joint Compounds
- Gypsum based Plasters

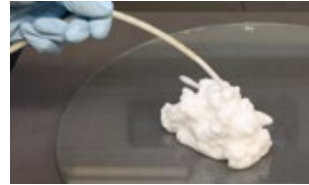


## Application Technology and technical support

Finding the right ingredients that exactly fit local raw materials and production process while still meeting market requirements is a highly challenging game. We can support your search to identify the right BASF Additives according to your technical requirements. BASF can also provide lab support with a broad variety of recognized testing methods for reliable pretesting of additives for the most critical steps of the production process thereby reducing time spent on costly production trials.

### Testing methods for:

- Setting time
- Rheology
- Mixing and Foaming Processes
- Drying
- Final Physical Properties



## Analytics and Mineralogy Service

BASF provides analytical profiles of inorganic raw materials such as gypsum, stucco, cement and other minerals that characterize regional differences. Such information identifies potential incompatibilities and aids in constructing an effective additive package.

### BASF offers:

- XRD and XRF measurements
  - Particle Size Distribution
  - Reactivity and setting
  - Content and Type of Impurities/Clay Index
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## Raw Materials and Solutions for Prefabricated Products

Product	Chemistry	Solid Content	Availability*	Applications					Character	
				Gypsum Wallboard	other Gypsum Boards	Cement Boards	Joint Compounds	Plasters		
							CaSO <sub>4</sub> based powder	Dispersion based mastic	CaSO <sub>4</sub> based powder	
<b>Foaming Agents</b>										
<b>Vinapor® GYP 3110</b>	Anionic based surfactant mixture	Standard	North America, Europe, Asia/Pacific, South America	■						Highly unstable foam for very coarse air pore design, e.g., light-weight boards
<b>Vinapor® GYP 3550</b>	Anionic based surfactant mixture	Standard	North America, Europe, Asia/Pacific, South America	■						Unstable foam for very coarse air pore design, e.g. light-weight boards
<b>Vinapor® GYP 3711</b>	Anionic based surfactant mixture	Standard	North America, Europe, Asia/Pacific, South America	■						Unstable foam. High foam efficiency for coarse air pore design
<b>Vinapor® GYP 3702</b>	Anionic based surfactant mixture	Standard	North America, Europe, Asia/Pacific, South America	■						Medium stable foam. High foam efficiency for medium coarse pores
<b>Vinapor® GYP 2620</b>	Anionic based surfactant mixture	Standard	Europe, Asia/Pacific	■		■				Stable foam for small air pores and robust processing
<b>Vinapor® GYP 2630</b>	Anionic based surfactant mixture	Standard	Asia/Pacific	■	■	■				Stable foam for small air pores and robust processing
<b>Vinapor® GYP 2680</b>	Anionic based surfactant mixture	Standard	North America, Europe, Asia/Pacific, South America	■	■					Stable foam for small air pores and robust processing
<b>Vinapor® GYP 10</b>	Anionic based surfactant mixture	High	North America, Europe, Asia/Pacific, South America	■	■	■				Stable foam for small air pores and robust processing. Increased solid content
<b>Vinapor® GYP 4220</b>	Non-ionic surfactant	Standard	North America, Europe, Asia/Pacific, South America			■		■		High stability in cementitious / alkaline surrounding. Limited foaming power, workability agent
<b>Superplasticizers</b>										
<b>Melcret® K 2000 L</b>	Ketone-condensate	40%	North America, Europe, Asia/Pacific, South America		■					Highly robust water reducer for decorative applications and glass mat facer boards. Very high tolerance to clay impurities
<b>Melment® L 50</b>	Melamine-formaldehyde condensate	40%	North America, Europe, Asia/Pacific, South America	■	■					Reduced formaldehyde content, very low content of sodium sulfate
<b>Melment® F 15 G</b>	Melamine-formaldehyde condensate	Powder	North America, Europe, Asia/Pacific, South America						■	Reduced formaldehyde content, extended open time
<b>Melment® F 17 G</b>	Melamine-formaldehyde condensate	Powder	North America, Europe, Asia/Pacific, South America						■	Reduced formaldehyde content
<b>Melflux® PCE 239 L</b>	Polycarboxylic ether	35%	North America, Europe, Asia/Pacific, South America	■	■	■				Slight water reduction, reduced retardation properties. Usage in combination with stable foams
<b>Melflux® PCE 1493 L</b>	Polycarboxylic ether	40%	North America, Europe, Asia/Pacific, South America	■	■	■		■		PCE for BNS replacement. Usage in combinations with stable foams
<b>Melflux® PCE 26 L/ F.F.</b>	Polycarboxylic ether, foam-friendly	40%	North America, Europe, Asia/Pacific, South America	■	■	■				Foam structure optimized. BNS replacement with outstanding dispersing properties

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							CaSO <sub>4</sub> based powder	Dispersion based mastic	CaSO <sub>4</sub> based powder

<b>Melflux® PCE 541 L/ F.F.</b>	Polycarboxylic ether, foam-friendly	44%	North America, Europe, Asia/Pacific, South America	■	■	■				Foam structure optimized. BNS replacement with high dispersing properties
<b>Melflux® PLUS 1085 L</b>	Phosphate based polymer	32%	Europe, Asia/Pacific,	■	■	■				Phosphate based polymer for high water reduction properties at very low retardation of gypsum set.
<b>Melflux® PLUS 312 L</b>	Phosphate based polymer	35%	Asia/Pacific	■	■	■				Phosphate based polymer for high water reduction properties at very low retardation of gypsum set.
<b>Melflux® 4930 F</b>	Polycarboxylic ether	Powder	North America, Europe, Asia/Pacific, South America					■		Fast dissolving water reducer. Dispersant for excellent workability and improved mixing. E.g., machine applied mortars
<b>Melflux® 5581 F</b>	Polycarboxylic ether	Powder	North America, Europe, Asia/Pacific, South America					■		Highly efficient water reducer

#### Rheology Modifiers/Thickeners/Stabilizers/Dispersants

<b>Starvis® 308 F</b>	High-molecular weight synthetic copolymer	Powder	North America, Europe, Asia/Pacific, South America					■	■	Water retaining polymer for reduced stickyness and improved workability
<b>Starvis® T 50 F</b>	Polyacrylamide	Powder	North America, Europe, Asia/Pacific, South America					■		Thickener for improved sag resistance
<b>Starvis® T 51 F</b>	Polyacrylamide	Powder	North America, Europe, Asia/Pacific, South America					■		Thickener for improved sag resistance, delayed solubility
<b>Starvis® SE 25 F</b>	Starch-ether	Powder	North America, Europe, Asia/Pacific, South America						■	Low retarding starch-ether. Low impact on yield-point. Improved workability
<b>Starvis® SE 35 F</b>	Starch-ether	Powder	North America, Europe, Asia/Pacific, South America						■	Starch-ether, with good impact on yield-point. Improved workability
<b>Starvis® SE 45 F</b>	Starch-ether	Powder	North America, Europe, Asia/Pacific, South America						■	Starch-ether with improved dosage efficiency. Very high impact on yield-point, improved workability
<b>Starvis® S 3911 F</b>	High-molecular weight synthetic copolymer	Powder	North America, Europe, Asia/Pacific, South America				■	■		Optimized water storage. Shrinkage improvement through reduction of capillary pores
<b>Melvis® WA GYP 1000</b>	EO/PO blockcopolymer	Powder	North America, Europe, Asia/Pacific, South America					■	■	Wetting agent for improved workability. Esp., machine applied mortars

#### Hydration Control

<b>HyCon® S 7100 L</b>	Aqueous suspension, based on calcium silicate hydrate	25%	North America, Europe, Asia/Pacific, South America			■				Hardening accelerator for Ordinary Portland Cement (OPC) binded systems. High early strength without negative influence on final strength
<b>HyCon® S 3200 F</b>	Calcium-silicate-hydrate	Powder	North America, Europe, Asia/Pacific, South America			■				Hardening accelerator for Ordinary Portland Cement (OPC) binded systems. High early strength without negative influence on final strength

■ = recommended

\* Listings in major countries available, to be checked for single countries regional production partly available

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