

# Solutions for Construction Applications

*Building a better future together*

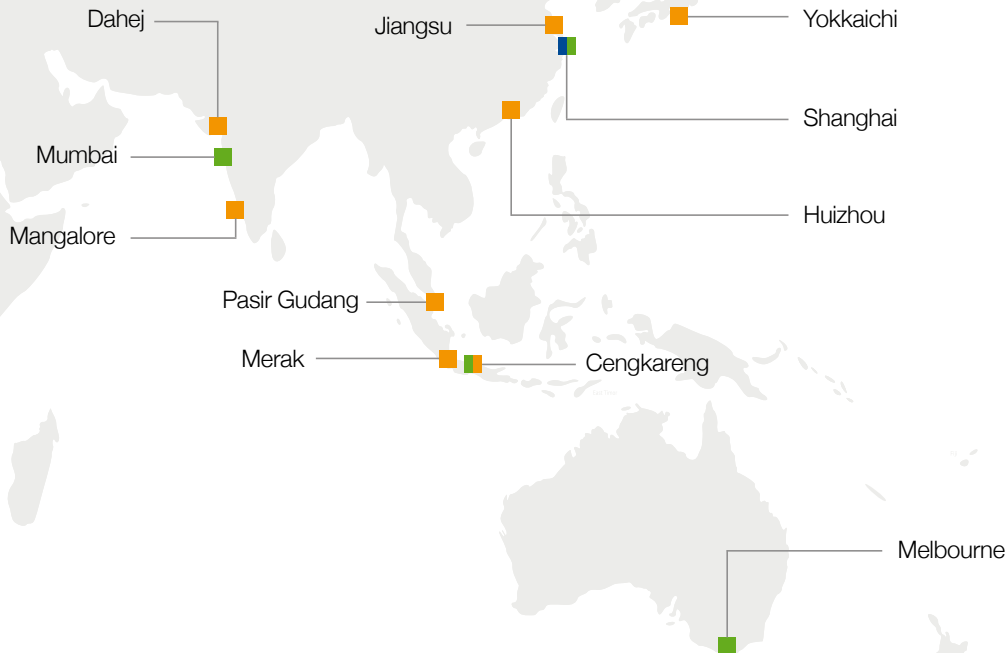


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# Introduction

## BASF polymer dispersions for construction in Asia Pacific



BASF is a leading global supplier of raw materials to the construction industry. Our products are used in a wide range of commercial, residential and industrial applications. Focusing on our customers' specific needs and challenges, we develop high-quality reliable and sustainable innovations that meet the highest industry standards. BASF is able to do so via an extensive network in Asia consisting of local production sites, labs and R&D centers that provide expertise in sourcing, R&D, formulation and regulatory support.

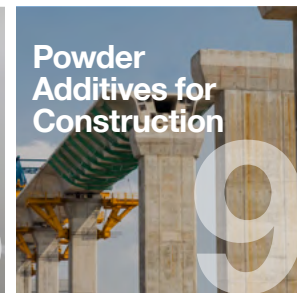
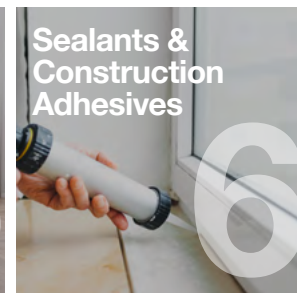
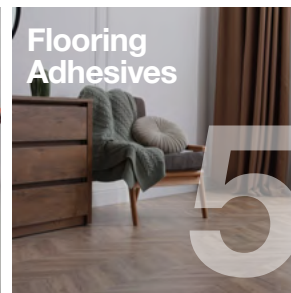
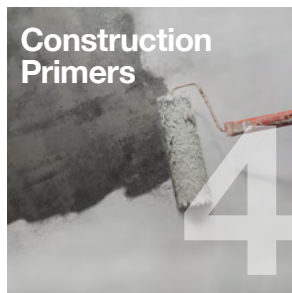
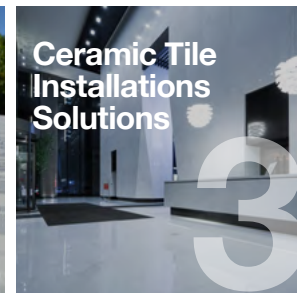
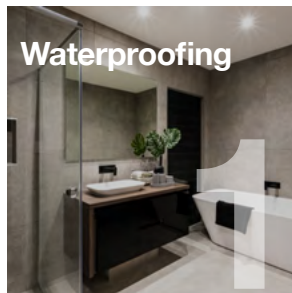
 Production Sites

 R&D Centers

 Technical Service Labs

# Segment Overview

We provide one-stop construction solutions via a wide range of high-performance products and expert technical support. Our offerings include waterproofing dispersions that protect structures from water ingress, adhesives that safeguard the integrity of tiles, and asphalt polymers that extend the service life of roads while reducing maintenance.



# Sustainability

Rapid urbanization and growth in our cities have led to greater awareness of the use of chemicals and their effect on health and livelihoods. Stricter regulations in Asia Pacific now limit the use of harmful substances like volatile organic compounds (VOCs), formaldehyde and acetaldehyde to ensure both applicators and end-customers are safe. The need of the hour is sustainable alternatives that comply with all major international certification requirements.

At BASF, we have always combined economic success with environmental and social responsibilities. Our best-in-class solutions enable buildings to be more durable and energy efficient, requiring fewer resources for maintenance.



BASF R&D Campus in Shanghai

## HOW WE WALK THE TALK

### LOW-EMISSION TECHNOLOGIES

BASF has developed breakthrough low-emission waterproofing solutions for mastic and cementitious applications. This technology offers high waterproofing performance (EMICODE EC 1 PLUS compliant) while providing for the safety of all participants – from construction crews to residents.

### FLEXIBLE ROOF COATINGS

Cool roofs are an increasingly popular trend in the construction industry. These roofs reflect sunlight and have less heat absorption making them an effective, sustainable and attractive alternative to standard roofs. Targeting this segment, the BASF Acronal® range provides APEO and formaldehyde-free water-based acrylic dispersions that are suitable for both new roofs as well as roof repairs.

## OUR APPROACH TO SUSTAINABILITY



Material Efficiency



Durability



Renewables



CO<sub>2</sub> Emissions



Resource Efficiency



Health & Safety



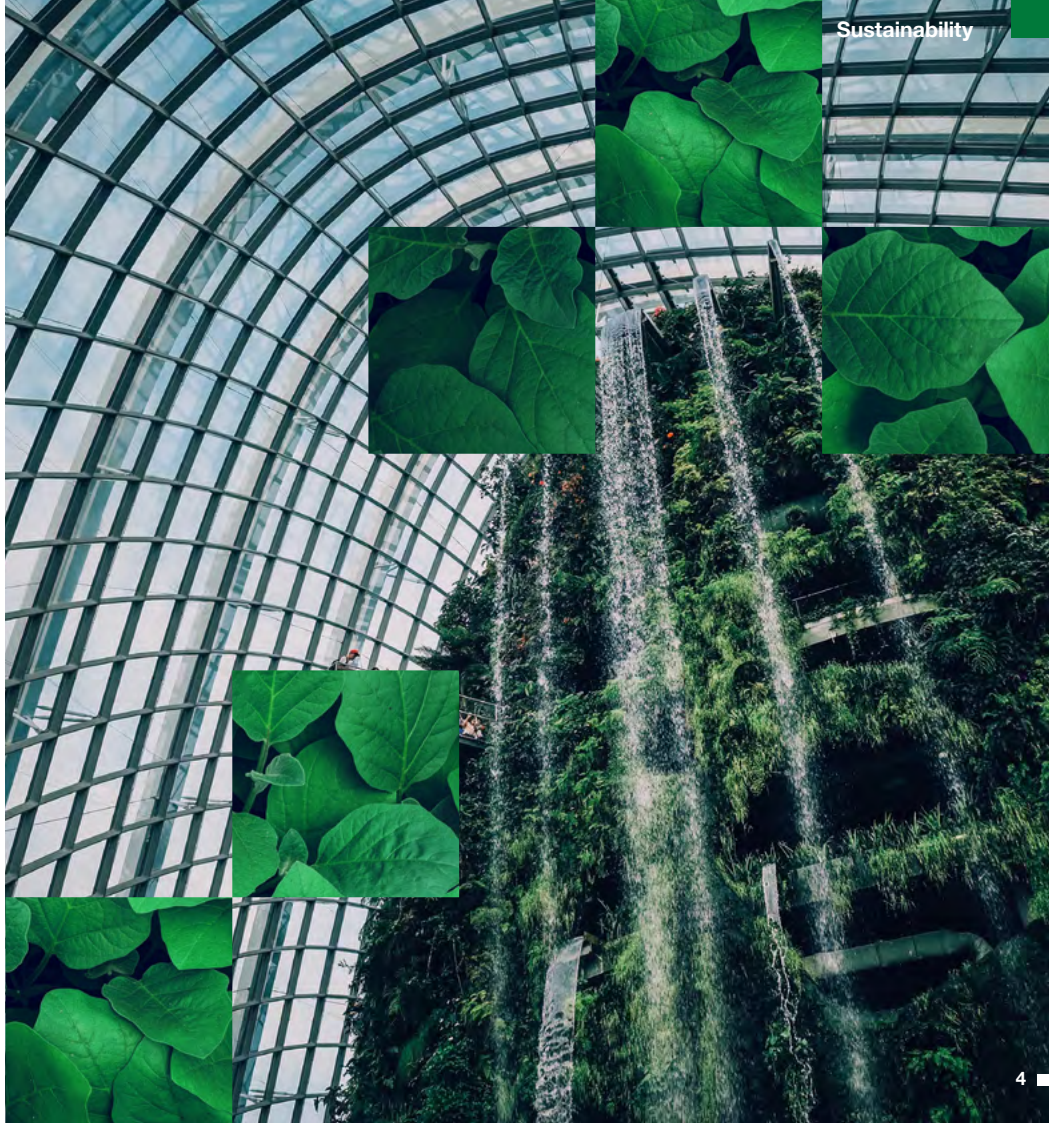
Water Reduction

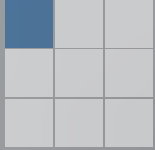


Waste Reduction



Energy Savings





# Mastic Waterproofing

Ready-to-use waterproofing that provides high durability for beneath tiles and exposed applications





## MASTIC WATERPROOFING SOLUTIONS

Waterproofing solutions protect buildings against water intrusion and safeguard the peace of mind and comfort of residents. BASF offers key raw materials like polymers and additives as well as formulation know-how for commercial and residential waterproofing applications.

## SINGLE-COMPONENT, READY-TO-USE

Mastic waterproofing membranes are single-component ready-to-use membranes that can be used over various substrates like concrete, screed and tiles. BASF products for mastic waterproofing membranes optimize construction time: they can be rolled, brushed or sprayed onto horizontal or vertical surfaces on-site without any mixing.

## HIGHLY DURABLE SOLUTIONS

BASF solutions for mastic waterproofing membranes offer the following high-differentiation benefits:

- Outstanding crack-bridging capability
- High elongation with balanced tensile strength

## KEY STRENGTHS



Superior Crack  
Bridging



No Mixing =  
Less Emissions



Various Application  
Methods

PRODUCT LIST:

Product Name	Tg (°C)	Solid Content (%)	Viscosity (mPa·s)	Kitchen, Bathroom & Wet Area	Roof & Exterior	Features
<b>Acronal® PS 713</b>	22	~50	1,800 – 4,500	■	■	<ul style="list-style-type: none"> <li>· Robust and general-purpose product for roof applications and wall coating facades</li> <li>· Offers high versatility, ease of formulation and high binding power</li> </ul>
<b>Acronal® PS 755</b>	23	~50	200 – 900	■	■	<ul style="list-style-type: none"> <li>· Strong adhesion to substrate under wet conditions</li> <li>· APEO and Formaldehyde free</li> </ul>
<b>Styrofan® PLUS 7552</b>	2	~52	100 – 500	■		<ul style="list-style-type: none"> <li>· Excellent chemical resistance</li> <li>· Good hydrolysis resistance</li> <li>· APEO free, low VOC</li> </ul>
<b>Styrofan® ECO 7577</b>	5	~50	150 – 450	■		<ul style="list-style-type: none"> <li>· Superior elasticity and strong adhesion to the substrate</li> <li>· Excellent water resistance</li> <li>· Very low emission</li> </ul>
<b>Acronal® 7588</b>	20	~48	2,000 – 6,000	■	■	<ul style="list-style-type: none"> <li>· Offers protection on substrates without altering surface texture</li> <li>· Low water absorption</li> <li>· Resistance to water whitening problems</li> <li>· Good adhesion on various substrates</li> </ul>





# Cementitious Waterproofing (2K)

Two-component blends that offer superior strength and water resistance for wet areas



## CEMENTITIOUS WATERPROOFING SOLUTIONS

A high-quality flexible waterproofing membrane ensures the long-term durability of buildings by preventing water infiltration, stretching to cover cracks and moving with the building. To develop a water membrane with robust physical properties requires advanced raw materials.

## TWO-COMPONENT BLENDS

Cementitious waterproof coatings are two-component blends that provide waterproofing protection for wet areas, water tanks and swimming pools. They do this through their high-bonding strength and affinity to concrete and masonry substrates. Our portfolio of cementitious waterproof coatings offers comprehensive and greener alternatives. These are low VOC, APEO-free, formaldehyde-free and ammonia-free while retaining all essential features.

## SUPERIOR STRENGTH AND WATER RESISTANCE

BASF solutions for rigid and flexible cementitious waterproofing membranes cater to your needs with:

- High mechanical strength balanced with greater flexibility
- Excellent crack-bridging capability
- Outstanding alkali and water resistance
- Positive and negative water pressure resistance
- Meeting stringent environment-friendly requirements

## KEY STRENGTHS



Excellent Bonding Strength



Low Temperature Flexibility

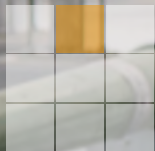


High Compatibility with Cement

PRODUCT LIST:

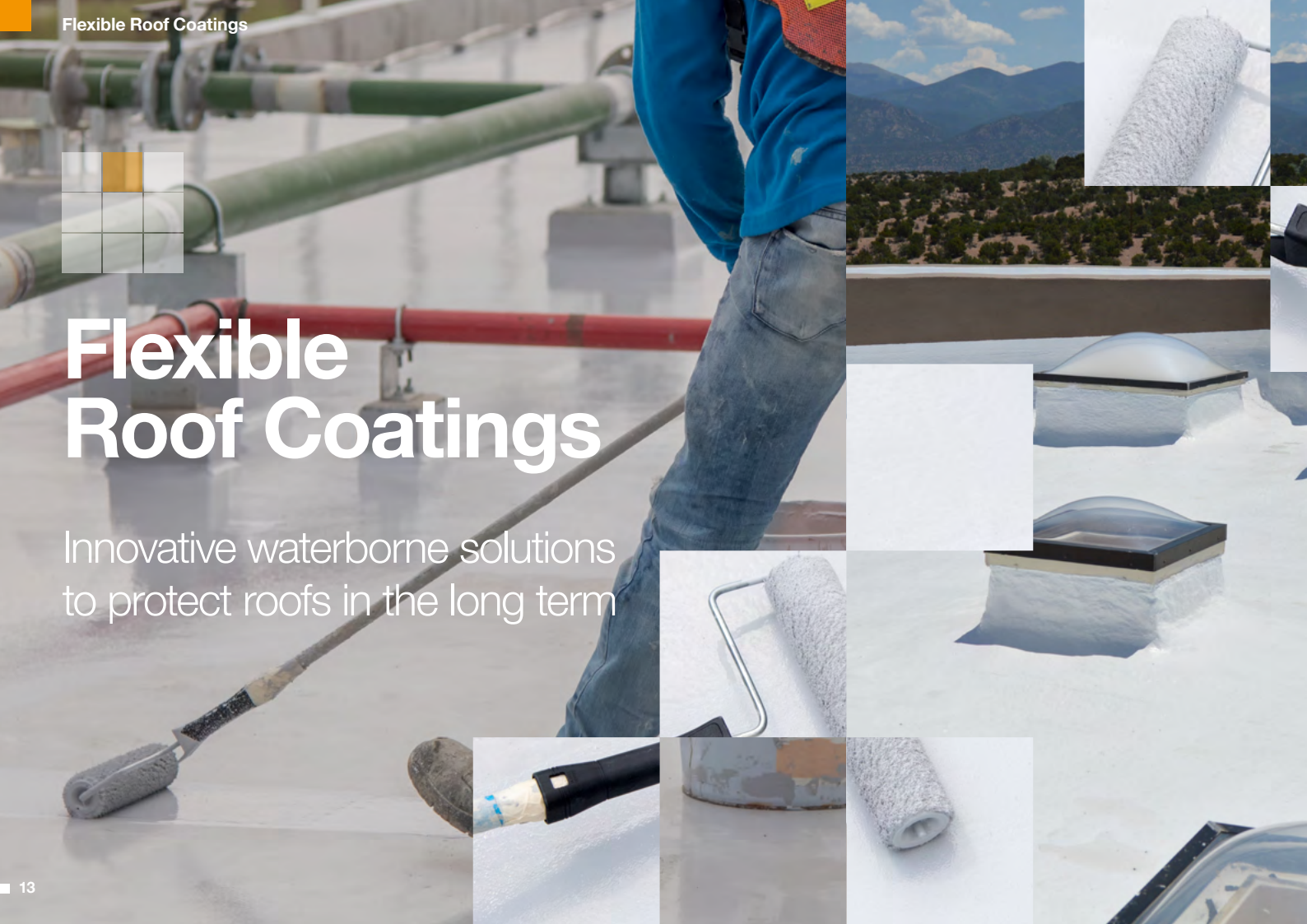
Product Name	Tg (°C)	Solid Content (%)	Viscosity (mPa·s)	Basement	Kitchen, Bathroom & Wet Area	Features
<b>Acronal® 5400</b>	-8	~57	150 – 1500	■	■	<ul style="list-style-type: none"> <li>· Suitable for drinking water application in surface protection</li> <li>· Low-temperature crack-bridging properties</li> <li>· Good workability properties</li> </ul>
<b>Acronal® S400F AP</b>	-8	~57	300 – 750	■	■	<ul style="list-style-type: none"> <li>· High water resistance</li> <li>· High resistance to carbon dioxide diffusion</li> <li>· Excellent high powder loading</li> <li>· Quality stability &amp; reliability</li> </ul>
<b>Acronal® ECO 7806</b>	-11	~54	100 – 1,000	■	■	<ul style="list-style-type: none"> <li>· Meeting stringent environmentally-friendly standards</li> <li>· Outstanding tensile strength with good adhesion</li> <li>· Excellent water and alkaline resistance</li> </ul>
<b>Acronal® PLUS 7550</b>	-2	~50	200 – 900	■	■	<ul style="list-style-type: none"> <li>· Excellent mechanical strength and water uptake performance</li> <li>· Good compatibility with different types of cements</li> <li>· High formulation flexibility to provide extra yield</li> <li>· Outstanding workability</li> </ul>

Product Name	To (°C)	Solid Content (%)	Viscosity (mPa·s)	Basement	Kitchen, Bathroom & Wet Area	Features
<b>Acronal® PS 608 AP</b>	10	~50	500 – 2,000	■	■	<ul style="list-style-type: none"> <li>· High mechanical strength</li> <li>· Good flow property</li> <li>· Excellent adhesion</li> <li>· Good compatibility with cement admixtures</li> <li>· APEO and formaldehyde free</li> </ul>
<b>Acronal® ECO 7559</b>	19	~48	10 – 100	■	■	<ul style="list-style-type: none"> <li>· Good workability</li> <li>· Adapts to various broad formulations</li> <li>· Offers good flow, flow retention, high strength, impermeability and low water absorption</li> </ul>
<b>Styrofan® D 623</b>	14	~51	40 – 215	■	■	<ul style="list-style-type: none"> <li>· High compatibility with cement</li> <li>· Good adhesion and water resistant</li> </ul>
<b>Styrofan® ECO 7623</b>	14	~51	50 – 300	■	■	<ul style="list-style-type: none"> <li>· Meeting stringent environmentally-friendly standards</li> <li>· Outstanding strength for cementitious mortars and lightweight concrete</li> </ul>



# Flexible Roof Coatings

Innovative waterborne solutions  
to protect roofs in the long term





## SOLVING ROOFING CHALLENGES

Roofs in the Asia-Pacific region are subject to a variety of external challenges – from large variations in temperature to extreme weather conditions. Applied on flat or low-sloped roofs in industrial, commercial or residential areas, our flexible roof coating solutions protect buildings from water infiltration and safeguard their structural integrity in the long run.

## FOR NEW AND EXISTING ROOFS

BASF flexible roof coating solutions can be used on both new roofs as well as during the renovation of existing roofs. The coating improves the durability of a building through its liquid elastomeric membrane which can be sprayed, rolled or brushed on, ensuring wider surface coverage. Our products offer sustainable alternatives to traditional roofing with APEO and formaldehyde-free water-based acrylic dispersions. They also offer increased energy savings through high solar reflectivity.

## EASE-OF-USE, COST-EFFECTIVE

Our comprehensive portfolio of acrylic dispersions delivers a fast, easy-to-use, cost-efficiency application with the following features:

- Heat reflection
- Low temperature flexibility
- Ease of application
- Durability
- Cost effectiveness

## KEY STRENGTHS



Tough & Durable



Early Rain Resistance



Easy Application

## PRODUCT LIST:

Product Name	Tg (°C)	Solid Content (%)	Viscosity (mPa·s)	General Purpose	High Durability	TPO & EPDM	Asphalt	Concrete	Metal	Features
<b>Acronal® Plus 7544</b>	-	~61	3,000 - 10,000	■	■	■	■	■	■	<ul style="list-style-type: none"> <li>· High-performance</li> <li>· Excellent tensile strength, elongation, and water ponding resistance</li> </ul>
<b>Acronal® NX 3587</b>	-5	~55	200 - 500	■	■	■	■	■	■	<ul style="list-style-type: none"> <li>· High-performance</li> <li>· Excellent asphalt bleed and water resistance</li> </ul>
<b>Acronal® 7578</b>	23	~50	200 - 900	■		■	■	■	■	<ul style="list-style-type: none"> <li>· Balanced performance for tensile, elongation</li> <li>· Good dirt pick-up resistance</li> </ul>
<b>Acronal® XPRESS 7540</b>	-5	~50	50 - 500	■	■	■	■	■	■	<ul style="list-style-type: none"> <li>· High-performance</li> <li>· Early rain resistance</li> <li>· Excellent asphalt bleed and water resistance</li> </ul>





# Ceramic Tile Installations Solutions

Designed for enhanced adhesion, impact resistance and to overcome environmental stress





### SOLVING TILING CHALLENGES

Tiles undergo constant and numerous types of environmental stress including heat, cold, humidity, dryness, vibrations and physical impact. Additionally, the trend now is to use large porcelain tiles that require enhanced adhesion and impact resistance to prevent the risk of detachment. At BASF, we offer dispersions and powder additives for 1K and 2K cementitious tile adhesives, mastic tile adhesives, back tile adhesives and tile grouts providing reliable solutions suited to long-lasting innovative designs.

### COMPREHENSIVE TILING SOLUTIONS

#### Ceramic Tile Adhesives (CTA)

- Our powder additives portfolio for 1K cementitious CTA allows for controlled applicability and easy handling.
- Our dispersions for 2K cementitious CTA products enable end-users to control quality on-site and provide an optimal cost-performance ratio.
- Our dispersions for mastic CTA are suitable for indoor applications such as walls in dry and wet rooms. As a ready-to-use and dust-free solution, they are optimal for indoor renovations and DIY applications.

#### Back Tile Adhesives (BTA)

- Back tile adhesives are applied to the back of the tile at the job site for adhesion enhancement, increased water resistance and efficient cost-in-use.

### KEY STRENGTHS



Hammer Test Resistance



Water Resistance



High Adhesion



Easy Application

PRODUCT LIST:

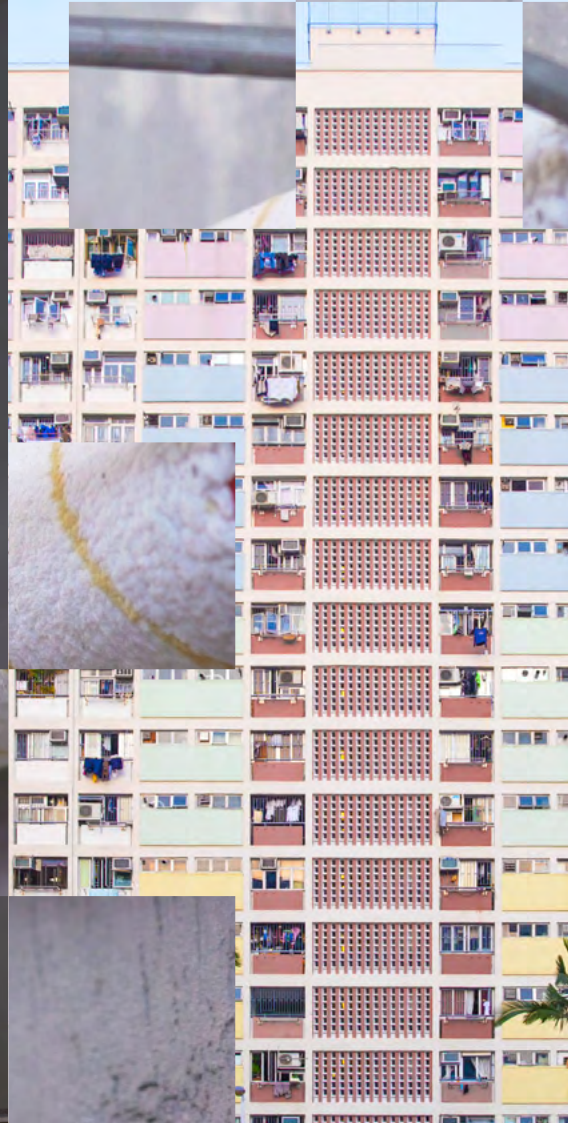
Product Name	Tg (°C)	Solid Content (%)	Viscosity (mPa·s)	pH Value	2K Cementitious CTA	Mastic CTA	Back Tile Adhesive	Features
<b>Acronal® PS 608 AP</b>	10	~50	500 – 2,000	7.0 - 9.0	■			<ul style="list-style-type: none"> <li>· Excellent workability</li> <li>· Suitable for C2S1 class adhesives</li> <li>· Low odor</li> </ul>
<b>Styrofan® ECO 7623</b>	14	~51	50 - 300	7.0 - 9.0	■			<ul style="list-style-type: none"> <li>· Green XSB meeting stringent environmentally-friendly standards</li> <li>· Outstanding strength for cementitious mortars and lightweight concrete</li> </ul>
<b>Acronal® 5041 AP</b>	4	~52	40 - 300	7.0 - 8.0		■		<ul style="list-style-type: none"> <li>· Excellent adhesion to multiple substrates</li> <li>· Excellent water resistance</li> <li>· Suitable for D2TE class adhesives</li> </ul>
<b>Acronal® 7808</b>	-35	~49	200 – 1,500	6.0 - 8.0			■	<ul style="list-style-type: none"> <li>· Superior impact resistance</li> <li>· Good adhesion promotion</li> <li>· Good water resistance and heat resistance</li> </ul>
<b>Acronal® PLUS 7805</b>	-35	~49	200 – 1,500	6.0 - 8.0			■	<ul style="list-style-type: none"> <li>· Superior impact resistance</li> <li>· Good adhesion promotion</li> <li>· Good water resistance and heat resistance</li> <li>· Ultra low-odor meeting stringent emission requirements (including EC1 plus)</li> </ul>
<b>Styrofan® 7809</b>	-25	~48	500 – 4,000	7.0 - 9.0			■	<ul style="list-style-type: none"> <li>· Superior impact resistance</li> <li>· Good adhesion promotion</li> <li>· Enhanced water resistance with good heat resistance</li> <li>· Fast drying</li> </ul>





# Construction Primers

Promote better substrate preparation to provide resistance in various substrate conditions





## A BETTER SUBSTRATE PREPARATION

The durability of a substrate is dependent on the quality of its preparation. The use of primer is essential in order to ensure that the layers on top are properly enforced in order to keep the substrate strong and intact.

## SAFER WORKING ENVIRONMENT

Our range of water-based acrylics safeguard the functional integrity of the subsequent layer and facilitate its application, thereby providing a safer working environment for professionals.

## COMPREHENSIVE PRIMER SOLUTIONS

In order to meet a wide range of requirements in various applications, our solutions offer the following attractive features:

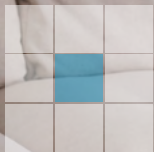
- Adhesion promotion
- Moisture barrier
- Efflorescence resistance
- Dust binding
- Stain blocking
- Deep penetration



## PRODUCT LIST:

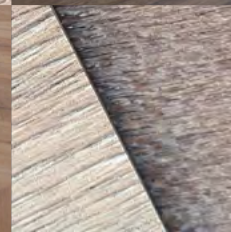
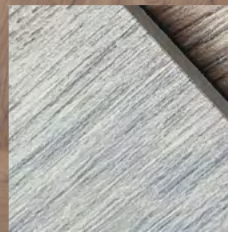
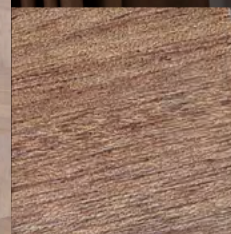
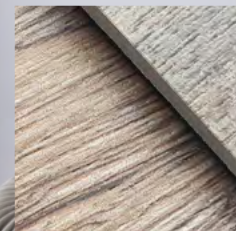
Product Name	Tg (°C)	Solid Content (%)	pH	Viscosity (mPa-s)	Features
<b>Acronal® 7530</b>	28	~48	6.0 - 8.0	400 – 1,800	<ul style="list-style-type: none"> <li>· Universal use primer</li> <li>· Strong adhesion promotion on various substrates</li> </ul>
<b>Acronal® ECO 7536</b>	31	~40	6.5 - 8.5	20 - 200	<ul style="list-style-type: none"> <li>· Highly penetrative primer</li> <li>· High dust binding ability for substrate strengthening on weak substrates.</li> <li>· Low VOC</li> </ul>
<b>Acronal® 5041 ap</b>	4	~52	7.0 - 8.0	40 - 300	<ul style="list-style-type: none"> <li>· Multi-functional high-performance primer</li> <li>· Excellent adhesion on various substrates</li> <li>· Excellent water resistance and efflorescence resistance</li> </ul>





# Flooring Adhesives

Specially created to adhere to a wide range of resilient flooring materials



## MEETING INNOVATION CHALLENGES

Better innovations in flooring design have created new challenges for the industry. Flooring adhesive materials must now adhere to a variety of substrates while retaining key properties over the lifetime of the flooring surface. They must also stand up to various performance requirements, and enable quick and easy installation.

## FLOORING ADHESIVE SOLUTIONS

At BASF, we offer a broad portfolio of acrylic dispersions tailored for flooring adhesive applications. These dispersions provide a balance between high performance, workability, and meeting the relevant sustainability standards of the industry. Our solutions for flooring adhesives allow formulators to overcome challenges found on the job site – from speed of installation and ease of use, to moisture issues and clean-up.

## A BROAD PORTFOLIO

Our portfolio caters to a broad range of flexible floor coverings:

- LVT (Luxury Vinyl Tile)
- PVC sheet
- Textile
- Linoleum
- Rubber

## KEY STRENGTHS



Eco-Friendly



Efficiency



High-Performance



Easy Application

## PRODUCT LIST:

Product Name	Tg (°C)	Solids Content (%)	Viscosity (mPa·s)	pH Value	Carpet	PVC Tile	PVC Sheet	Rubber	Features
<b>Acronal® A 378 ap</b>	-22	~62	150 - 350	5.7 - 6.7	■	■	■	■	<ul style="list-style-type: none"> <li>· Extremely high cohesion</li> <li>· High heat resistance and dimensional stability</li> </ul>
<b>Acronal® 5047</b>	-22	~55	100 – 250	6.5 - 8.5	■	■	■	■	<ul style="list-style-type: none"> <li>· Well-balanced adhesion and cohesion</li> <li>· Excellent workability</li> <li>· High heat resistance</li> </ul>
<b>Acronal® 7590</b>	-23	~55	300 – 4,000	5.0 - 7.0	■	■	■	■	<ul style="list-style-type: none"> <li>· Excellent balance of good mechanical strength with high initial grab and legging performance</li> <li>· Long open time and high storage stability</li> </ul>
<b>Acronal® 3633 ap</b>	-35	~60	100 – 300	6.0 - 9.0	■	■	■		<ul style="list-style-type: none"> <li>· Dispersion suitable for PSA-type flooring adhesives</li> <li>· High resistance to heat and wet conditions</li> <li>· Exceptionally high alkaline resistance, low odor when applied in green concrete</li> <li>· High initial tack</li> </ul>
<b>Acronal® ECO 7534</b>	-36	~54	2,000 – 6,000	6.5 - 8.5	■	■			<ul style="list-style-type: none"> <li>· Ready-to-use PSA-type flooring adhesive</li> <li>· High peel strength and excellent workability</li> <li>· Low odor</li> </ul>
<b>Acronal® AV 215 CR ap</b>	-40	~64.5	100 - 350	3.5 - 6.0	■	■	■	■	<ul style="list-style-type: none"> <li>· High adhesion and initial tack with low-temperature flexibility</li> <li>· Resistant to wet conditions and heat</li> </ul>





# Sealants and Construction Adhesives

Sealing gaps while remaining flexible to ensure structural integrity





## THE IMPORTANCE OF SEALANTS

Sealants fill the gaps in joints or surfaces while allowing for structural movements caused by heat variations, aging and vibrations. The binder used in sealants plays a crucial role as it must adhere to a variety of substrates while retaining high flexibility to ensure structural integrity under various circumstances.

## COMPREHENSIVE SEALANT SOLUTIONS

We have an extensive range of water-based acrylic dispersions for paintable sealants to provide the elastomeric and adhesive properties you require. Our sealant solutions provide improved adhesion and flexibility, weatherability, and desired cure rates while ensuring a safe working environment and ease of use.

## AN EXTENSIVE RANGE

BASF's comprehensive portfolio of acrylic sealants and gap fillers are backed by formulation technologies to offer various solutions to our customers' specific needs. Our products can be formulated into sealants and gap fillers for general performance products as well as for highly-differentiated solutions. They include the following features:

- Quick curing
- Easy paintability
- Outstanding elasticity
- Early rain resistance
- Extremely high adhesion to glass and ceramic surfaces
- "Crystal clear" transparency

## KEY STRENGTHS



Eco Friendly



High-Performance

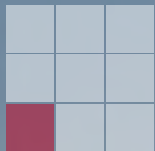


Efficiency

## PRODUCT LIST:

Product Name	Tg (°C)	Solids Content (%)	Viscosity (mPa·s)	pH Value	Gap Filler	Sealant	Construction Adhesive	Features
<b>Acronal® PS 713</b>	22	~50	1,800 - 4,500	7.5 - 9.0	■		■	<ul style="list-style-type: none"> <li>· Styrene-acrylic dispersion with high filler compatibility</li> <li>· High adhesion on various substrates</li> </ul>
<b>Acronal® 5411</b>	7	~62	40 – 250	6.4 - 7.2		■	■	<ul style="list-style-type: none"> <li>· Binder for crystal clear transparent sealants</li> <li>· Excellent adhesion to all usual surfaces</li> </ul>
<b>Acronal® PLUS 7810</b>	-10	~60	200 – 700	4.0 - 5.5	■	■		<ul style="list-style-type: none"> <li>· Styrene-acrylic dispersion with high filler compatibility</li> </ul>
<b>Acronal® V 275 ap</b>	-30	~65	150 – 600	4.0 - 5.0		■		<ul style="list-style-type: none"> <li>· Vinyl-latex dispersion with high elastic recovery</li> <li>· Excellent cohesion and high initial water resistance</li> <li>· Good flexibility at low temperature</li> </ul>
<b>Acronal® 5036</b>	-30	~60	100 – 600	6.0 - 7.5		■		<ul style="list-style-type: none"> <li>· Binder for high-performance sealants</li> <li>· Excellent adhesion to glass and ceramic</li> </ul>





# Infrastructure Solutions

Highly durable applications that increase safety while limiting environmental impact



## HIGHER DURABILITY IN INFRASTRUCTURE

Infrastructure projects - both new and upgrades – are a key driver for the construction industry in Asia Pacific. These projects must not only last decades but also withstand heavy traffic, load and changing climatic conditions. BASF solutions deliver for higher durability in infrastructure and ultimately increase safety for all users while limiting environmental impact.

## A COMPREHENSIVE PORTFOLIO

### Asphalt modification

Our portfolio of latexes can be used for asphalt modification both in hot-mix asphalt and asphalt emulsion, ensuring a longer lifetime with low energy consumption.

### Concrete curing

Concrete requires a proper curing process to achieve the best performance for longer stability and to avoid any installation failures. We offer a highly water-retentive solution which retains concrete's high compressive strength thereby maximizing its life.

### Concrete protection

Inner steel reinforces concrete structures and helps them be tough and durable. However, environmental challenges including carbonation, acid exposure and cracks lead to corrosion of steel. Our dispersions assist the market in preparing concrete protective coatings that enable long-lasting infrastructure to adapt to these challenges.

### Pavement marking

Pavement markings play a crucial role in road safety by indicating traffic lane usage and providing important information about road conditions ahead. Highly visible and long-lasting road-safety paints must continuously withstand demanding traffic and weather conditions. We offer high-performing raw materials to formulate quick drying waterborne pavement paints.

## KEY STRENGTHS



Ammonia & APEO  
Free



Long Lasting &  
Durable



Shorter Drying Time

**PRODUCT LIST:**

Product Name	Tg (°C)	Solid Content (%)	Viscosity (mPa·s)	pH Value	Asphalt Modification	Concrete Related	Pavement Marking	Features
<b>Acronal® NX 4627 X</b>	12	~48	100 - 500	6.0 - 8.0	■			<ul style="list-style-type: none"> <li>· Styrene-acrylic binder</li> <li>· Stable in both anionic and cationic bitumen emulsion, as well as cement</li> <li>· APEO and ammonia free</li> </ul>
<b>Butonal® NS 198</b>	-53	~64	250 - 2,000	5.0 - 5.6	■			<ul style="list-style-type: none"> <li>· Cationic, high molecular weight styrene butadiene dispersion</li> <li>· Designed for use in asphalt modification</li> <li>· Improves strength, ductility and flexibility</li> <li>· APEO and ammonia free</li> </ul>
<b>Butonal® 5126 X</b>	-24	~50	200 – 1,000	7.5 - 8.5	■			<ul style="list-style-type: none"> <li>· Aqueous styrene-butadiene dispersion</li> <li>· Hot mix asphalt and thin lift overlays</li> </ul>
<b>Styrofan® 1186</b>	-6	~48	6 – 60	9.5 - 10.5		■		<ul style="list-style-type: none"> <li>· Styrene-butadiene binder</li> <li>· Used to create latex modified concrete for stronger, longer-lasting lasting bridge decks and parking garages</li> </ul>

Product Name	Tg (°C)	Solid Content (%)	Viscosity (mPa·s)	pH Value	Asphalt Modification	Concrete Related	Pavement Marking	Features
<b>Acronal® 4040</b>	39	~45	Ca. 300	6.0 - 8.0		■		<ul style="list-style-type: none"> <li>· Styrene-acrylic copolymer</li> <li>· Water-based concrete cure and seal coatings that deliver benefits of both a curing agent and sealer in a single coating application</li> </ul>
<b>Butonal® NX 4190</b>	53	~64	250 - 2,000	5.0 - 5.6	■			<ul style="list-style-type: none"> <li>· Cationic, crosslinking styrene butadiene dispersion</li> <li>· Used in premium chip seals and micro-surfacing emulsions</li> <li>· Promotes early strength build</li> <li>· APEO and ammonia free</li> </ul>
<b>Acronal® Xpress 7558</b>	23	~51	100 - 1,500	10.5 - 11.5			■	<ul style="list-style-type: none"> <li>· Aqueous acrylic dispersion</li> <li>· Fast drying and good early rain resistance</li> </ul>
<b>Acronal® Xpress 4347</b>	25	~50	<300	10.0 - 11.0			■	<ul style="list-style-type: none"> <li>· All-acrylic copolymer binder</li> <li>· Increases drying time and durability in traffic paints and pavement markings</li> <li>· APEO-free</li> </ul>



# Gypsum Wallboard Solutions

Selection guide of a wide range of innovative foaming agents and superplasticizers





## COMPREHENSIVE SOLUTIONS FOR GYPSUM WALLBOARDS

Prefabrication for both commercial and residential building is on the rise in Asia-Pacific, enabling fast and environmentally-friendly construction outside of city centers. Manufacturers are seeking sustainable solutions to increase energy and water savings while retaining key features such as strength and ease of installation. To this end, BASF offers a comprehensive selection of innovative foaming agents and superplasticizers for various gypsum wallboard designs.

## HIGH-PERFORMANCE SUPERPLASTICIZER

### Melflux Series

Our high-performance superplasticizer offers high water-reduction efficiency reducing drying time and supporting higher-strength boards.

- **PCE** High water reduction and Energy savings
- **PLUS** Lower retardation impact and high water reduction
- **CC** The ideal solution for highly impure stucco

## A COMPLETE RANGE OF FOAMING AGENTS

### Vinapor Series

Foaming agents improve process stability, reduce board density and optimize air pore structure resulting in higher core strength values. The series is applicable across the board – from fine to coarse bubbles.

## KEY STRENGTHS



Light Weight



High Strength



Water Reduction



Energy Saving

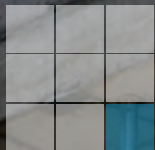
## PRODUCT LIST:

## FOAMING AGENTS:

Product Name	Chemistry	Active Content (%)	Features
<b>Vinapor® GYP 3782</b>	Anionic based surfactant mixture	~35	· Strong performance in generating medium to coarse pores at small dosage
<b>Vinapor® GYP 3110</b>	Anionic based surfactant mixture	~35	· Highly unstable foam for very coarse air pore design, e.g., lightweight boards
<b>Vinapor® GYP 3550</b>	Anionic based surfactant mixture	~35	· Unstable foam for coarse air pore design, e.g., lightweight boards
<b>Vinapor® GYP 2620</b>	Anionic based surfactant mixture	~27	· Stable foam for small air pores and robust processing
<b>Vinapor® GYP 2680</b>	Anionic based surfactant mixture	~27	· Stable foam for small air pores and robust processing
<b>Vinapor® GYP 10</b>	Anionic based surfactant mixture	~56	· Stable foam for small air pores and robust processing. Increased solid content

## SUPERPLASTICIZERS:

Product Name	Chemistry	Active Content (%)	Features
<b>Melflux® PCE 26 L/F.F.</b>	Polycarboxylic ether, foam friendly	~40	· Foam structure optimization, BNS replacement with outstanding dispersing properties
<b>Melflux® PCE 541 L/F.F.</b>	Polycarboxylic ether, foam friendly	~44	· Foam structure optimization, BNS replacement with outstanding dispersing properties
<b>Melflux® PCE 1493 L</b>	Polycarboxylic ether	~40	· PCE for BNS replacement, usage in combinations with stable foams
<b>Melflux® PCE 239 L</b>	Polycarboxylic ether	~35	· Slight water reduction, and reduced retardation properties, usage in combination with stable foams
<b>Melflux® PLUS 1087 L</b>	Phosphate based polymer	~32	· Phosphate based polymer for high water reduction properties at very low retardation of gypsum set



# Powder Additives for Construction

High-quality raw materials for  
long-lasting solutions



## QUALITY ADDITIVES TO ACHIEVE A QUALITY MIX

Designing and formulating the right construction materials can be a challenge. To obtain high-quality solutions, you require high-quality raw materials. BASF offers a broad range of powder and liquid additives, flowable systems and non-sag Refractory materials to enhance your formulations.

## COMPREHENSIVE SOLUTIONS

Our brands can provide you with the right solution:

- **Dispersants:** Melment<sup>®</sup>, Melflux<sup>®</sup>, Melvis<sup>®</sup>
- **Rheology Control:** Starvis<sup>®</sup> SE, Starvis<sup>®</sup> T
- **Water Swellable Polymers:** Starvis<sup>®</sup> S, Starvis<sup>®</sup> RS
- **Air Control Additives:** Vinapor<sup>®</sup> AE, WA, DF
- **Hydration Control Additives:** HyCon<sup>®</sup> S, A & R

## KEY STRENGTHS



Efficiency



High Strength



CO<sub>2</sub> Reduction



Energy Saving

PRODUCT LIST:

	Product Name	Chemistry / Appearance	Cementitious self-levelling underlayments / floor screeds	Non-shrink grouts / Machinery grouts	Gypsum self-levelling underlayments / floor screeds	Ceramic tile adhesives / tile grout	Repair mortar	Plasters / Renders / Skim coat	Waterproofing coat / mortar	Features
Superplasticizers	Melment® F10	Powder	■	■						<ul style="list-style-type: none"> <li>· All-round product</li> <li>· Improved mixing &amp; bonding properties</li> </ul>
	Melment® F15 G	Powder			■					<ul style="list-style-type: none"> <li>· Optimized for wallboard</li> <li>· Long open time</li> <li>· Low formaldehyde content</li> </ul>
	Melment® 2651 F	Polycarboxylic Ether/Powder	■	■						<ul style="list-style-type: none"> <li>· All-round product</li> <li>· High early strength development</li> <li>· German drinking water approval (DVGW W270 &amp; W347)</li> </ul>
	Melment® 4930 F	Polycarboxylic Ether/Powder	■	■						<ul style="list-style-type: none"> <li>· Fast dispersing effect</li> <li>· Benefit for machine application (short mixing)</li> <li>· French drinking water approval (compliance with positive list No. 2000/232, Apr. 27, 2000)</li> </ul>
Stabilizers	Starvis® 3003 F	High molecular weight polymer/Powder	■	■	■					<ul style="list-style-type: none"> <li>· Prevents bleeding and segregation</li> <li>· Optimized for thin layer systems</li> </ul>
	Starvis® 3040 F	High molecular weight polymer/Powder	■	■	■					<ul style="list-style-type: none"> <li>· Prevents bleeding and segregation</li> <li>· Optimized for thick layer systems</li> </ul>

	Product Name	Chemistry / Appearance	Cementitious self-levelling underlayments / floor screeds	Non-shrink grouts / Machinery grouts	Gypsum self-levelling underlayments / floor screeds	Ceramic tile adhesives / tile grout	Repair mortar	Plasters / Renders / Skim coat	Waterproofing coat / mortar	Features
Rheology Modifying Agents	<b>KELCO-CRETE® DG-F</b>	Diutan Gum/ Powder (fine grade)	■	■	■					<ul style="list-style-type: none"> <li>Prevents sedimentation of mineral particles,</li> <li>Optimized for thick layer systems.</li> </ul>
	<b>Starvis® RS 421/01 F</b>	Synthetic Polymer/Powder				■	■	■		<ul style="list-style-type: none"> <li>Internal curing and reduction of crack formation.</li> <li>Improved freeze/thaw resistance and durability.</li> <li>High sag resistance.</li> <li>Additional water retention.</li> </ul>
Wetting and Workability Agents	<b>Vinapor® WA 3918 F</b>	Non-ionic surfactant/Powder	■		■	■		■		<ul style="list-style-type: none"> <li>Excellent dispersing and wetting properties.</li> <li>Marked viscosity reduction.</li> <li>Increases color development and stability in pigmented systems.</li> <li>For gypsum-based mortar, Vinapor® WA 3710 F is recommended.</li> </ul>
	<b>Vinapor® WA 2000 F</b>	Ketlon Resin/Powder	■		■	■	■	■	■	<ul style="list-style-type: none"> <li>Dispersing effect to improve workability with stabilizing micro air voids effect</li> <li>Create creamy rheology.</li> </ul>
	<b>Vinapor® AE 3914 F</b>	Anionic Surfactant/ Powder				■	■	■		<ul style="list-style-type: none"> <li>Efficient air-entraining and workability agent</li> <li>Introduces a constant amount of extremely stable air</li> <li>Independent of the mixing method and mixing time</li> </ul>

	Product Name	Chemistry / Appearance	Cementitious self-levelling underlayments / floor screeds	Non-shrink grouts / Machinery grouts	Gypsum self-levelling underlayments / floor screeds	Ceramic tile adhesives / tile grout	Repair mortar	Plasters / Renders / Skim coat	Waterproofing coat / mortar	Features
Hydration Control Additives	HyCon® S 7100 L	Aqueous suspension of C-S-H seeds/ Liquid	■	■		■	■	■	■	<ul style="list-style-type: none"> <li>Acceleration of systems based on OPC</li> <li>Increase of early strength development by C-S-H seeding technology</li> </ul>
	HyCon® S 7042 L	C-S-H seeding/ Powder	■	■		■	■	■	■	<ul style="list-style-type: none"> <li>Alkali-free accelerator of OPC based on C-S-H seeding technology. Improved early strength</li> </ul>
Defoamers	Vinapor® DF 2922 F	Silicon free defoamer blend/ Powder	■	■	■		■		■	<ul style="list-style-type: none"> <li>General-purpose defoamer, RAL-UZ 113 conform</li> <li>Suitable for formulations complying with BFR XIV (drinking water approval for Germany)</li> </ul>
	Vinapor® DF 9010 F	Fatty alcohol alkoxylates and polysiloxanes blend/ Powder	■	■	■		■		■	<ul style="list-style-type: none"> <li>Very efficient defoaming effect, prevents air bubbles</li> <li>Provides smooth surface. Low VOC (useful for EMICODE® EC-1, RAL-UZ 113 conform)</li> </ul>





# Contact Us

## ASIA PACIFIC

BASF East Asia  
Regional Headquarters Ltd.,  
36/F, Two Taikoo Place,  
Tai Koo Place, 979 King's Road,  
Quarry Bay, Hong Kong

Tel: +852 2731 0111  
Fax: +852 2731 5633  
Email: [dispersions\\_apac@basf.com](mailto:dispersions_apac@basf.com)

## ASEAN

Tel: +603 7621 1888

## KOREA

Tel: +82 2 3703 3100

## JAPAN

Tel: +81 3 3796 9293

## GREATER CHINA

Tel: +86 21 2039 1000

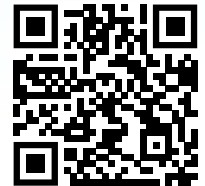
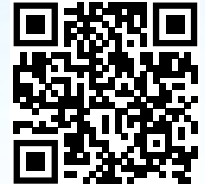
## SOUTH ASIA

Tel: +91 22 2858 0300

## AUSTRALIA & NEW ZEALAND

Tel: +61 3 8855 6222

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