

Performance Additives for Modern Drymix Mortars

Performance Additives Building & Construction Product Portfolio –
Asia Pacific

Experience

the difference

The rapid pace of change in today's construction industry requires the continuous development of new high-performance products to improve the quality and sustainability of building materials. The way we build is changing and new standards are emerging to meet the improvements demanded in our places of work as well as in our homes.

The need for better-performing, more sustainable and more cost-effective construction chemicals to meet these new challenges has never been greater. Nowhere is the demand for better performance more obvious than in Asia Pacific, where the construction industry is raising standards year after year.

We at AkzoNobel's Building and Construction business relish the opportunity to take on these challenges and enable our customers to address the new needs emerging in the construction industry.

Following the pioneering efforts in 1968 in the production of redispersible polymer powder, ELOTEX® products established themselves as the benchmarks in several drymix mortar applications and still today remain at the

forefront of innovation. Similarly, BERMOCOLL® cellulose ethers, with more than 50 years of history in the construction industry, now form a complementary technology to our redispersible polymer powder range. The Performance Additives technology package for drymix mortar industry is rounded with the ELOTEX® specialty additives range, which includes a range of unique products, bringing additional performance to the most demanding drymix mortar applications.

With our unrivalled product portfolio, strong R&D capabilities, technical support expertise and global manufacturing presence, we offer our customers formulation expertise, experience and product competence to ensure their continued success in a very demanding and ever-changing industry.

How to find the perfect fit

Our product portfolio comprises three main technologies: BERMOCOLL® cellulose ethers, ELOTEX® redispersible polymer powders, and ELOTEX® specialty additives. Whether used as standalone additives or in combination with one another, our products offer a powerful toolkit for the development of drymix mortar formulations for the construction industry.

BERMOCOLL® Cellulose Ethers

More than 50 years of production experience enable us to offer an optimised portfolio of BERMOCOLL® cellulose ethers to the construction industry. Our BERMOCOLL® products are based on cellulose, a natural polymer derived from wood or plant fibres and we offer following main cellulose ether types, Ethyl Hydroxyethyl Cellulose (EHEC) and Methyl Ethyl Hydroxyethyl Cellulose (MEHEC). Both product groups are obtained through a chemical substitution process known as etherification. BERMOCOLL® cellulose ethers are unique in the industry and have been developed to impart a range of properties in drymix mortars. Depending on the end-user requirements, BERMOCOLL® products provide:

- Increased water retention
- Improved consistency to make thin layer products workable
- Controlled rheology to provide sag resistance
- Reduced segregation of different formulation ingredients
- Improved adhesion on porous substrates
- Optimized air pore stability for improved workability
- Improved adhesion to polystyrene boards

In addition to the conventional uses of BERMOCOLL® cellulose ethers in drymix mortar formulations, our products are also recommended as rheology modifiers for ready-to-use dispersion based pasty systems.

ELOTEX® redispersible polymer powders have a decisive influence on cement, lime or gypsum based finished drymix mortar products. Our free-flowing redispersible polymer powders are obtained through spray-drying of optimised latex dispersions.

Our expertise in the development and production of special latex dispersions allows AkzoNobel to supply an unprecedented range of products specifically developed to bring defined improvements to a wide range of mortars:

- Excellent mortar workability
- Increased adhesion to porous and non-porous substrates
- Reduced rigidity and improved flexibility
- Increased abrasion resistance
- Reduced water adsorption
- Ensured long term durability

Our ELOTEX® product range also offers distinct benefits in formulating products to very specific requirements such as the EMICODE EC1^{PLUS} VOC requirements or German BfR XIV requirements for contact with potable water, and, where required, assist formulators in meeting demanding air quality standards for indoor use (e.g. LEED).

ELOTEX® Specialty Additives

The ELOTEX® specialty additives range comprises a number of differing technologies ranging from formulated additives such as our ELOTEX® CAST family to encapsulated silane technology used in the development of our ELOTEX® SEAL products.

In applications ranging from flooring, grouts over external thermal insulation composite systems to plastering and renders, our customers can experience unique improvements brought about by the specialty additives products, such as:

- Improved water resistance
- Increased hydrophobicity
- Superior water repellency
- Reduced efflorescence
- Unparalleled stain resistance
- Improved workability
- Excellent leveling

Flooring – Quality from the bottom up

ELOTEX® and BERMOCOLL® products support the rheology and workability of the full range of flooring formulations improving ease of on-site application and ensuring exceptionally smooth, defect-free surfaces.

In the finished flooring, our products enhance all of the key physical characteristics required of modern flooring. Continuous improvement of our product range ensures that our products enable you to reach lowest VOC emission levels required in the industry.

Typical applications

- Industrial and residential flooring
- Cement based self-leveling compounds and screeds
- Gypsum based floorings
- Pumpable and hand-applied compounds

Benefits

- Increased leveling, surface aesthetics and abrasion resistance
- Improved flexural and tensile bond strength on various substrates
- Reduced formulation complexity
- Option of using different qualities of raw materials
- Stabilisation against bleeding and segregation
- Improved defoaming properties
- Formulating to EMICODE EC1^{PLUS} requirements

Redispersible Polymer Powders

●●● = excellent ●● = very good ● = good

Products	ELOTEX®	FL2200	FL2211	FL2280	FL3210
Technical Information	Chemical base	VA/E	VA/E	VA/E	VA/V/E
	MFFT (°C)	0	3	3	5
	VOC Emission Class	EC1 ^{PLUS}	EC1 ^{PLUS}	EC1 ^{PLUS}	EC1 ^{PLUS}
Physical Properties	Flowability	●●	●●	●●	●●●
	Surface appearance	●●	●●	●●●	●●
	Robustness in formulation	●	●	●●	●●●
	Abrasion resistance	●	●	●●	●●●
	Defoaming	–	●●●	●●●	●●
Applications	Cement based SLC with casein	●●	●●	●●	●●●
	Cement based SLC with synthetic plasticizers	●●●	●●●	●●●	●●●
	Gypsum based SLC	●●	●●	●●	●●●
	Pumpable screeds	●	●●	●●●	●●
Comments		Newly developed high quality non – defoamed RPP with extremely low VOC emissions (formaldehyde free), good leveling effects and universal properties for leveling compounds.	High quality defoamed RPP with good flow and leveling effects.	Newly developed high quality defoamed RPP with extremely low VOC emissions (formaldehyde free), excellent leveling properties and improved surface appearance.	High quality defoamed RPP providing excellent flow effects and good compatibility with other formulation ingredients.

Specialty Additives

Products	ELOTEX®	CAST700	CAST710	FLOWKIT74
Technical Information	Functionality	Rheology Enhancer	Rheology Enhancer	Plasticizing Polymer
	VOC Emission Class	EC1 ^{PLUS}	EC1 ^{PLUS}	EC1 ^{PLUS}
Physical Properties	Stabilization	●●●	●●	●●
	Flowability	●●●	●●	●●●
	Surface appearance	●●●	●●	●●●
	Defoaming	●●●	●●●	●●
Applications	Cement based SLC	–	–	●●●
	Gypsum based SLC	●●●	●●	●
	Gypsum based SLS	●●	●●●	–
Comments		New and unique product based on innovative technology, specifically designed for gypsum (beta, FGD) based SLC.	New and unique product based on innovative technology specifically designed for gypsum (beta, FGD) based SLS.	Combination of ELOTEX® technologies in a single, unique product for leveling compounds with improved compatibility to different cement qualities.

Cellulose Ethers

Products	BERMOCOLL®	E 230 X
Technical Information	Chemical base	EHEC
	Viscosity (2%, mPas)	300
	Modification	no
	Particle size	extra fine powder
Physical Properties	Stabilization	●●●
	Water retention	●●●
Applications	Cement based SLC with casein	●●●
	Cement based SLC with synthetic plasticizers	●●●
	Gypsum based SLC and SLS	●●
Comments		Non-modified, low viscosity cellulose ether, designed to improve the consistency, stability and water retention of flooring compounds.

SLC = Self-leveling compound | SLS = Self-leveling screed

Tiling – Flexible Connections

Cementitious tile adhesives formulated with ELOTEX® and BERMOCOLL® products are easy to work with, environmentally friendly, easy to apply and offer flexible, long lasting performance of tiled areas.



ELOTEX® and BERMOCOLL® products for tile adhesives deliver high adhesive strength, high sag resistance, increased freeze-thaw stability and very good working properties.


Typical applications

- Standard quality C1 and C2 tile adhesives (EN 12004)
- High quality flexible tile adhesives C2S1 (EN 12004)

- High quality flexible adhesives suitable for outdoor applications C2S2 (EN 12004)
- Floor and wall tiling
- All different formats (large and small) of porous and non-porous tiles
- Mineral and non-mineral substrates

Redispersible Polymer Powders

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Products	ELOTEX®	MP2050	FX5600	FX6300 
Technical Information	Chemical base MFFT (°C) VOC Emission Class	VA/E 3 EC1	VA/W/E/Ac 0 EC1	VA/E/Vc 0 EC1 ^{PLUS}
Physical Properties	Thixotropy Open time Flexibility Wet adhesion	– ● ● ●	– ●● ●●● ●●	– ●●● ●● ●●●
Applications	Standard quality C1–C2 High quality C2S1 Outdoor application C2S2	●●● – –	●● ●● ●●●	●● ●●● ●●●
Comments		High quality RPP with multipurpose properties suitable for standard tile adhesives.	High quality, flexible RPP with excellent workability and water resistance, recommended for high quality tile adhesives, large tiles and outdoor applications at high RPP dosage.	High quality, flexible RPP with excellent workability, improved wet adhesion and increased open time properties, recommended for large tiles and high quality tile adhesives like C2S1, C2ES1 and C2TES1.

Benefits

- Excellent adhesive bond strength on different substrates

- Increased plastic behaviour and flexibility
- Increased cohesive force
- High wet strength values
- Excellent open time and sag resistance

Cellulose Ethers

Products	BERMOCOLL®	M 10	M 30	M 70	BCM 050	MT 500
Technical Information	Chemical base Viscosity (2%, mPas) Modification Particle size	MEHEC 7'500 no fine powder	MEHEC 18'000 no fine powder	MEHEC 42'000 no fine powder	MEHEC 3'900 strong fine powder	MEHEC 4'500 very strong fine powder
Physical Properties	Open time Water retention Anti-sagging	●● ● ●	●● ●● ●	●● ●●● ●	●● ●● ●●	●●● ●● ●●●
Applications	Standard quality C1 High quality C2–C2S1 Outdoor application C2S2	●● ●●● ●	●●● ●● ●	●●● ●● ●	●● ●●● ●●	●● ●●● ●●●
Comments		Non-modified, low viscosity cellulose ether designed for improving water retention, consistency, workability and strength of cement based tile adhesives.	Non-modified, medium viscosity cellulose ether designed for improving water retention, consistency, workability and strength of cement based tile adhesives.	Non-modified, medium high viscosity cellulose ether designed for improving water retention, consistency, workability and strength of cement based tile adhesives.	Strongly modified, low viscosity cellulose ether specifically designed for C2S1 cement based tile adhesives. Improves water retention, consistency, workability and strength of formulations.	Extra strongly modified, low viscosity cellulose ether specifically designed for C2ES1, C2TES1 cement based tile adhesives. Improves slip resistance, water retention, consistency, workability, open time and especially wet strength properties of formulations.

Grouts – Sealing the Gaps

Tile grouts incorporating ELOTEX® and BERMOCOLL® products, seal the gaps between tiles and compensate for any unevenness. In addition, tile joints perform an architectural and aesthetic function with their pattern and coloring.

Performance Additives offer the broadest range of products to improve properties across the complete range of grouting mortars. Our products have been designed to improve workability, filling performance and sag resistance of wall grouts.

Typical applications


- Flooring and wall grouting
- Cement based grouts CG1 and CG2 (EN 13888)
- All different format porous and non-porous tiles
- Indoor and outdoor applications

Benefits

- Improved adhesion to tile edges
- Increased flexibility and deformability
- Excellent hydrophobic and water repellent properties
- Outstanding oleophobicity and stain resistance
- Reduced efflorescence
- Improved water retention, consistency and workability

Redispersible Polymer Powders

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Products	ELOTEX®	MP2050	HD1510	HD2000 
Technical Information	Chemical base MFFT (°C) VOC Emission Class	VA/E 3 EC1	VA/VV 0 EC1	VA/E 3 EC1 ^{PLUS}
Physical Properties	Hydrophobicity Water uptake Defoaming	- - -	●● ●●● ●●●	●●● ●● -
Applications	Cement based grouts CG1 Cement based grouts CG2	●●● ●	● ●●●	● ●●
Comments		High quality RPP with multipurpose properties for standard cement based grouts. Use in combination with ELOTEX® SEAL products is recommended.	Highly defoamed, high quality hydrophobic RPP designed for grouts with very good long term water resistance.	High quality hydrophobic RPP designed for grouts with very good long term water resistance.

Specialty Additives

Products	ELOTEX®	SEAL80	SEAL200	SRT100	ERA200
Technical Information	Functionality	Hydrophobic	Hydrophobic	Stain-resistant	Anti-efflorescence
Physical Properties	Hydrophobicity Oleophobicity Stain-resistance Anti-efflorescence	●● - - -	●●● ● ● -	●●● ●●● ●●● -	● - - ●●●
Applications	Cement based grouts CG1 Cement based grouts CG2	● ●●	● ●●●	●● ●●●	●●● ●●●
Comments		Encapsulated silane in powder form with excellent miscibility and long storage time, provides water repellent properties to cement based grouts.	Highly active encapsulated silane in powder form with excellent miscibility and long storage time, provides strong hydrophobicity to cement based grouts.	Highly active encapsulated silane in powder form, providing outstanding hydrophobicity, oleophobicity and stain resistance to cement based grouts. Product ensures excellent workability and mixing properties for cement based systems.	Resin in powder form reduces primary and secondary efflorescence of hydraulic setting grout mixes which additionally provides water repellency.

Cellulose Ethers

Products	BERMOCOLL®	M 10
Technical Information	Chemical base Viscosity (2%, mPas) Modification Particle size	MEHEC 7'500 no fine powder
Physical Properties	Air entrainment* Water retention	●● ●●●
Applications	Cement based grouts CG1 Cement based grouts CG2	●● ●●●
Comments		Non modified, low viscosity cellulose ether designed for improving water retention, consistency, workability and strength of cement based tile adhesives.

* MEHEC entrains more air compared to MEHEC

ETICS – Sustainability through Energy Savings

The use of ELOTEX® and BERMOCOLL® products is essential for the workability, water retention, open time and general physical properties of the ETICS (External Thermal Insulation Composite System) mortars.

Typical applications

- Adhesive mortars
- Base coat
- Top coat

Benefits

- Increased adhesion, especially on EPS, XPS and MW boards
- Increased flexibility and impact resistance
- Increased cohesion
- Increased surface abrasion resistance
- Avoids crack formation
- Increased long-term performance



Redispersible Polymer Powders

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Products	ELOTEX®	FX2350
Technical Information	Chemical base	VAE
	MFFT (°C)	0
	VOC Emission Class	EC1
Physical Properties	Hydrophobicity	-
	Flexibility	●●●
	Dry adhesion	●●●
	Wet adhesion	●●
	Impact resistance	●●●
Applications	Adhesive mortar	●●●
	Combo mortar	●●●
	Base coat	●●●
Comments		High quality flexible RPP for the modification of cement based mortar and plaster systems, specially designed for External Thermal Insulation Composite Systems.

Specialty Additives

Products	BERMOCOLL®	PAD 2
Physical Properties	Adhesion on EPS	●●●
Applications	Adhesive mortar Base coat	●●● -
Comments		Specially formulated polystyrene-adhesion enhancing additive, especially recommended for cement based ETICS adhesive mortars which are used to fix all kind of polystyrene boards to the building surface.

Cellulose Ethers

Products	BERMOCOLL®	M 30	ML 31	M 70
Technical Information	Chemical base	MEHEC	MEHEC	MEHEC
	Viscosity (2%, mPas)	18'000	20'000	42'000
	Modification	no	low	no
	Particle size	fine powder	fine powder	fine powder
Physical Properties	Water retention	●	●●	●●●
	Open time	●●	●●	●●●
Applications	Adhesive mortar	●●	●●●	●●
	Base coat	●●	●●●	●●
Comments		Non-modified, medium viscosity cellulose ether designed for improving water retention, consistency, workability and strength of cement based ETICS products.	Modified medium viscosity cellulose ether for improving water retention, consistency, workability and strength of cement based renders.	Non-modified, high viscosity cellulose ether designed for improving water retention, consistency, workability and strength of cement based ETICS products.

Waterproofing – Keeping Water at Bay

Highly flexible cementitious waterproofing membrane modified with ELOTEX® redispersible polymer powders are ideal for use on substrates prone to shrinkage, cracking, movements, stresses or vibrations.

ELOTEX® redispersible polymer powders facilitate the application of flexible waterproofing membranes on substrates which are difficult to coat. The resulting polymer-modified membrane is resistant against chloride and sulphate ions, CO₂ and other aggressive media.

Typical applications

- Waterproofing of flat roofs
- Under-tile waterproofing and waterproofing of interior wet areas (showers, baths, kitchens)
- Waterproofing of interior and exterior cellar walls
- Sealing of sewage installations
- Waterproofing of swimming pool and Spa areas
- Waterproofing of water tanks
- Surface protection of structural concrete and general building protection


Benefits

- Excellent adhesion on various substrates
- Provide resistance to water and pressing water
- Improved flexibility and crack bridging performance
- Improved abrasion resistance
- Enhance long term weathering characteristics



Redispersible Polymer Powders for Flexible Waterproofing Membranes


●●● = excellent ●● = very good ● = good

Products	ELOTEX®	FX2322 	FLEX8320
Technical Information	Chemical base	VA/E	Ac
	MFFT (°C)	0	0
	VOC Emission Class	EC1 ^{PLUS}	EC2
Physical Properties	Hydrophobicity	–	●
	Flexibility	●●●	●●●
	Crack bridging	●●●	●●
	Robustness to variation of water content	●●●	●
Applications	Flexible membranes	●●●	●●●
Comments		Highly flexible high quality RPP particularly well suited for use in flexible sealing compounds, ensuring superior crack bridging properties.	Highly flexible high quality RPP with excellent saponification resistance particularly suited for use in flexible sealing compounds.

Specialty Additives for Rigid Waterproofing Membranes

Products	ELOTEX®	SEAL80	SEAL200
Technical Information	Functionality	Hydrophobic	Hydrophobic
Physical Properties	Hydrophobicity	●●	●●●
Applications	Rigid membranes	●●	●●●
Comments		Encapsulated silane in powder form with excellent miscibility and long storage time, provides water repellent properties to cement based grouts.	Highly active encapsulated silane in powder form with excellent miscibility and long storage time, provides strong hydrophobicity to cement based grouts.

Redispersible Polymer Powders for Rigid Waterproofing Membranes

Products	ELOTEX®	HD1510	HD2000 
Technical Information	Chemical base	VA/VV	VA/E
	MFFT (°C)	0	3
	VOC Emission Class	EC1	EC1 ^{PLUS}
Physical Properties	Hydrophobicity	●●	●●●
	Robustness to variation of water content	●	●●
	Defoaming	●●	–
Applications	Rigid membranes	●●●	●●
Comments		High quality flexible highly de-foamed hydrophobic RPP for rigid waterproofing slurries, grouts and plasters with very good long term water resistance.	High quality flexible RPP with very good water repellency and resistance for rigid waterproofing membranes.

Repair – As Good as New

Heavy traffic, climatic conditions, and pollution are all factors challenging building structures on a daily basis. Sooner or later, renovation is necessary in order to maintain structural integrity.



ELOTEX® and BERMOCOLL® products improve repair mortar rheology, workability and physical properties. Polymer-modified mortars have increased CO₂ impermeability and resistance to many other types of pollutants.

Typical applications

- Structural and non-structural concrete repair

Benefits

- High early strength
- Increased adhesive strength to concrete substrates
- Reduced shrinkage and cracking
- Increased hydrophobicity and reduced water absorption
- Optimized flexural and compressive strength
- Increased plasticity and flexibility
- Improved water retention

Redispersible Polymer Powders

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Products	ELOTEX®	FL1210	FX7000	TITAN8100
Technical Information	Chemical base MFFT (°C) VOC Emission Class	VA/VV 5 EC1	St/Ac 0 EC1	Ac 0 EC1
Physical Properties	Hydrophobicity Defoaming Flexibility Adhesion to different substrates	● ●● ●● ●	● ● ●●● ●●●	● ● ● ●●●
Applications	Non structural repair Structural repair	●● ●●	– ●●●	– ●●●
Comments		Highly defoamed high quality RPP with reduced water adsorption and certain hydrophobicity. Very good for high strength applications like concrete repair.	High quality RPP highly resistant to saponification specifically suited for manufacturing polymer-modified dry mixtures for concrete repair.	High quality RPP offering increased adhesive strength to concrete substrates, particularly suitable for systems requiring very high dry and wet strengths such as concrete repair mortars.

Cellulose Ethers

Products	BERMOCOLL®	M 10
Technical Information	Chemical base Viscosity (2%, mPas) Modification Particle size	MEHEC 7'500 no fine powder
Physical Properties	Water retention	●●●
Applications	Non structural repair Structural repair	●●● ●●
Comments		Non-modified, low viscosity cellulose ether designed for improving water retention, consistency, workability and strength of cement based concrete repair mortars.

Gypsum Joint Fillers – Smoothly filled

Gypsum joint fillers are generally used between gypsum boards in combination with paper strip as reinforcement to give a strong and even surface for further processing with paint, wall paper or finishing plaster.



Redispersible Polymer Powders

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Products	ELOTEX®	AD0110
Technical Information	Chemical base	VA
	MFFT (°C)	5
	VOC Emission Class	EC1
Physical Properties	Adhesion to paper	●●●
Applications	Gypsum based board jointing compound	●●●
Comments		Hard high quality RPP with excellent adhesion and cohesion properties with gypsum and to paper.

Specialty Additives

Products	ELOTEX®	SEAL712	ELOSET542
Technical Information	Functionality	Hydrophobicity	Thickener
	Chemical base	Silane	–
Physical Properties	Hydrophobicity	●●●	–
	Anti-efflorescence	●	–
Applications	Gypsum based board jointing compound	●	●
Comments		Encapsulated silane in powder form with excellent mixing and workability properties, long term storage stability and unique water repellent properties in gypsum based joint fillers.	Starch ether for reduced tackiness and improved structure, viscosity and workability ensuring smoother and easier application.

Gypsum-based filler materials are used to fill the gaps between board divisions and for smoothing and filling irregularities in walls and ceilings. Whether you need to ensure adhesion and cohesion or improve the workability properties, the ELOTEX® and BERMOCOLL® product ranges have been designed to help you meet all requirements. In addition, with use of our ELOTEX® SEAL product, increased life time and durability of gypsum-based joint fillers is guaranteed.

Typical applications

- Gypsum based trowelling and jointing compounds
- Interior applications where extended humidity resistance or water resistance of gypsum building products is required

Benefits

- Water repellency and bulk hydrophobisation
- Increased durability of gypsum building materials
- Increased adhesion and cohesion
- Increased dry surface abrasion resistance
- Increased water retention and improved workability

Cellulose Ethers

Products	BERMOCOLL®	CCA 312	M 30	CCA 328	CCM 879
Technical Information	Chemical base	EHEC	MEHEC	EHEC	MEHEC
	Viscosity (2%, mPas)	16'000	18'000	33'500	55'000
	Modification	strong	no	strong	strong
	Particle size	fine powder	fine powder	fine powder	fine powder
Applications	Gypsum based board jointing compound	●●●	●●●	●●●	●●●
Comments		Highly modified medium viscosity cellulose ether for improving water retention, consistency and stability for gypsum based jointing compounds.	Non-modified, medium viscosity cellulose ether designed for improving water retention, consistency, workability and stability for gypsum based jointing compounds.	Highly modified high viscosity cellulose ether for improving water retention, consistency and stability for gypsum based jointing compounds.	Highly modified high viscosity cellulose ether for improving water retention, consistency and stability for gypsum based jointing compounds.

Gypsum Plasters – Indoor durability ensured

Plasters based on gypsum or combined with hydrated lime are commonly used as interior leveling plasters for walls and ceilings.

They can be hand-applied or machine applied to increase efficiency. Using ELOTEX® and BERMOCOLL® products you ensure adhesion to all substrates, hydrophobicity and durability and perfect workability.

Typical applications

- Hand applied interior base coat plaster
- Machine applied interior base coat plaster
- Interior finishing / Skim coat plaster

Benefits

- Improved adhesion to a wide range of substrates
- Increased water repellency and hydrophobicity
- Improved water retention, consistency and stability



Redispersible Polymer Powders

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Products	ELOTEX®	MP2050	WR4600
Technical Information	Chemical base MFFT (°C) VOC Emission Class	VAE 0 EC1	VA/VV/Ac 0 EC1
Applications	Interior base coat plaster Interior finishing / skim coat plaster	●●● ●	●●● ●●●
Comments		High quality RPP with multipurpose properties excellent for gypsum based plaster products.	High quality RPP developed and optimized for warm and humid climatic zones. Especially suited for outdoor use.

Specialty Additives

Products	ELOTEX®	SEAL712	ELOSET542
Technical Information	Functionality	Hydrophobicity	Thickener
Physical Properties	Hydrophobicity Anti-efflorescence	●●● ●	– –
Applications	Interior base coat plaster Interior finishing / skim coat plaster	●●● ●●●	●● ●●
Comments		Encapsulated silane in powder form with excellent mixing and workability properties, long term storage stability and unique water repellent properties in gypsum based joint fillers.	Starch ether for reduced tackiness and improved structure, viscosity and workability ensuring smoother and easier application.

Cellulose Ethers

Products	BERMOCOLL®	CCA 312	ML 31	CCM 612	M 70
Technical Information	Chemical base Viscosity (2%, mPas) Modification Particle size	EHEC 16'000 strong fine powder	MEHEC 20'000 low fine powder	EHEC 36'500 strong extra fine powder	MEHEC 42'000 no fine powder
Applications	Hand applied interior base coat plaster Machine applied interior base coat plaster Interior finishing / skim coat plaster	– ●●● –	●●● – –	– – ●●●	●●● – –
Comments		Highly modified medium viscosity cellulose ether for improving water retention, consistency and stability for gypsum based plasters.	Modified medium viscosity cellulose ether for improving water retention, consistency, workability and strength of cement based plasters.	Highly modified high viscosity cellulose ether for improving water retention, consistency and stability of gypsum based plasters.	Non-modified high viscosity cellulose ether for improving water retention, consistency and stability of gypsum based plasters.

Cement and lime based renders – Durability inside and outside

Cement or cement lime renders are used for exterior and wet interior applications because of their higher strength and durability.

ELOTEX® and BERMOCOLL® products are used to improve the workability, adhesion, flexibility and surface resistance of such renders. Additional properties like hydrophobicity, thixotropicity as well as reduced efflorescence can also be achieved by the use of our specialty additives.

Typical applications


- Interior and exterior base coat renders
- Interior and exterior finishing renders and Skim coats

Benefits

- Improved adhesion to various substrates
- Increased water repellency and hydrophobicity
- Improved water retention, consistency and stability
- Reduced primary and secondary efflorescence

Redispersible Polymer Powders

●●● = excellent ●● = very good ● = good

Products	ELOTEX®	MP2050	HD2000 
Technical Information	Chemical base MFFT (°C) VOC Ecode Class	VAE 3 EC1	VAE 3 EC1 ^{PLUS}
Physical Properties	Flexibility Hydrophobicity	● -	●●● ●●●●
Applications	Interior base coat render Interior finishing render / skim coat Exterior base coat render Exterior finishing render / skim coat	●●● ●●● ●● ●●	● ● ●●● ●●●
Comments		High quality RPP with multipurpose properties suitable for standard render dry mixes.	High quality RPP with very good water repellency and resistance for use in exterior render dry mixes.

Specialty Additives

Products	ELOTEX®	SEAL90	ERA200	ELOSET542
Technical Information	Functionality	Hydrophobicity	Anti-efflorescence	Thickener
Physical Properties	Hydrophobicity Anti-efflorescence	●●● ●	● ●●●	- -
Applications	Interior base coat render Interior finishing render / skim coat Exterior base coat render Exterior finishing render / skim coat	● ●●● ●●● ●●●	● ●●● ●● ●●●	●● ●● ●● ●●
Comments		Encapsulated silane in powder form with excellent mixing and workability properties, long term storage stability and unique water repellent properties in cement based mortars.	Resin in powder form reduces primary and secondary efflorescence of hydraulic setting render mixes which additionally provides water repellency.	Starch ether for reduced tackiness and improved structure, viscosity and workability ensuring smoother and easier application.

Cellulose Ethers

Products	BERMOCOLL®	M 10	M 30	ML 31	M 70
Technical Information	Chemical base Viscosity (2%, mPas) Modification Particle size	MEHEC 7'500 no fine powder	MEHEC 18'000 no fine powder	MEHEC 20'000 low fine powder	MEHEC 42'000 no fine powder
Physical Properties	Water retention Sag resistance	● ●	●● ●	●● ●●	●●● ●●●
Applications	Interior base coat render Interior finishing render / skim coat Exterior base coat render Exterior finishing render / skim coat	●●● ●● ●●● ●●	●●● ●● ●●● ●●	●● ●● ●● ●●	● ●●● ● ●●●
Comments		Non-modified, low viscosity cellulose ether designed for improving water retention, consistency, workability and strength of cement based renders.	Non-modified, medium viscosity cellulose ether designed for improving water retention, consistency, workability and strength of cement based renders.	Modified medium viscosity cellulose ether for improving water retention, consistency, workability and strength of cement based renders.	Non-modified, high viscosity cellulose ether designed for improving water retention, consistency, workability and strength of cement based renders.



Welcome to Planet Possible



Our commitment to doing more with less

When people ask us what **sustainability** means to AkzoNobel, we tell them that our success depends on it. We know only too well that our future hinges on our ability to **do radically more while using less. More innovation**, less traditional solutions; **more renewable energy and materials**, less fossil-based; **more value chain focus**, less introverted thinking.

- Headquarters
- Production Sites
- RD&I and Technical Services
- Sales Office



We are there to help you

Product testing and technical service

Always a step ahead in innovation

As a market leader, AkzoNobel Performance Additives Building & Construction is continuously investing in basic research in order to better understand the fundamental mechanisms controlling the development of the polymer – cement matrix and its impact on the physical product performance. We would be happy to share our latest advances with you and provide you with the right tools to support your new developments.

Our technical centers worldwide are strategically positioned and have the full range of equipment required to undertake testing in accordance to current of specification. Our technical staff have many decades of experience in the area of formulation development, testing and assessment of mortar systems in all applications.

Building & Construction offers its customers (dry mortar manufacturers) a first-class technical service, including advice and laboratory work in developing and optimising appropriate products, whilst always taking the regional raw material situations and requirement profiles into consideration.

Key

●●● = excellent ●● = very good ● = good  = eco-friendly product

Abbreviations

VA = Vinyl acetate, VV = Vinyl versatate, VC = Vinyl chloride, E = Ethylene, St/Ac = Styrene/Acrylic Ester, Ac = Acrylate

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