

ADMIXTURES FOR CONCRETE

High performance
and specialisation



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Admixtures for concrete

High performance and specialisation

Today's concrete production market has become more demanding and requires more precision in terms of managing installation and placing times and when designing a concrete mix's technical performance properties in order to comply with the needs of the construction industry.

For manufacturers of ready-mixed concrete and precast concrete components, it has also become increasingly important to take into consideration both economic and environmental parameters. In order to achieve these parameters, manufacturers need to use a specific mix of innovative products combined with their in-depth technical knowledge and extensive experience in this particular sector.

For more than thirty years, Mapei has been supplying solutions and products in the field of concrete technology to meet the various requirements of its customers, offering both excellent technical support and products with an exceptional level of quality. Our aim is to be a partner not only for our customers, but also for all those involved in the design, planning and control processes of a component, structure made from concrete.

Along with our mission to constantly develop new technologies for our customers, this makes Mapei the "perfect partner" in the concrete industry. As an Admixtures team, we are experts in all areas regarding the use and application of concrete, particularly:

- Self-compacting concrete
- Concrete with high mechanical performance properties and durability
- Concrete for industrial and commercial flooring without joints
- Waterproof concrete
- Concrete resistant to freezing conditions
- Roller-compacted concrete
- Fibre-reinforced concrete
- Concrete with high initial mechanical properties, both with and without thermal cycles
- Pervious concrete

Choosing the right admixture for concrete

Mapei admixtures for concrete are designed to overcome the most varied challenges encountered during application. Once the specific application method has been specified and the main parameters of the mix design have been defined, the next step is to select the most appropriate Mapei admixture with the support of a local technical specialist.

Admixtures for high performance

Mapei admixtures for high-performance concrete are available on the market as commercially branded products such as **Mapefast**, **Mapetard**, **Mapeplast**, **Mapefluid**, **Dynamon**, **Mapeair** and **Idrocrete**, which are all compliant with EN 934-2 standards. All these products enable concrete of the highest quality to be produced (high durability and high mechanical properties) and are used in the most prestigious projects.

- **Mapefast** accelerators
- **Mapetard** retardants
- **Mapeair** air-entraining admixtures
- **Dynamon** superplasticisers

Special admixtures

Mapei special admixtures are products specifically developed to overcome specific technical problems in the concrete industry. Using these admixtures means that concrete with a high level of added value can be produced and enables new production technologies to be adopted that exceed current limits. And to this end Mapei is constantly committed to an ongoing improvement project and the constant development of new products and technologies that provide a genuine advantage to the development of the market.

- **The Re-Con Line** for the reuse of returned concrete and aggregates
- **Mapecure SRA** and **Expancrete** for **Mapecrete System** technology
- **Idrocrete KR 1000** mass crystallising waterproofer
- **Viscostar 3K** viscosity modifier
- **Mapeplast SF** microsilica
- **Mapeair LA** for filler concrete
- **Mapeplast UW** anti-washout admixtures
- **Mapetard SD 2000** hydration stabilisers
- **Mapecure SRA** shrinkage-reducing agent
- **Expancrete** for expansive, shrinkage-compensating concrete
- **Dynamon XTend** workability extenders

CE marking for admixtures

Since the admixtures for concrete can have extremely different performances and usage, the Standard has different classification categories, different tests and minimum performance levels for every single admixture type.

CLASSIFICATION	DESCRIPTION	TABLE
WR	Water reducing / plasticising admixture	Table 2
HRWR	High range water reducing / superplasticising admixture	Table 3
WRA	Water retaining admixture	Table 4
AEA	Air-entraining admixture	Table 5
SAA	Set accelerating admixture	Table 6
HAA	Hardening accelerating admixture	Table 7
SRA	Set retarding admixture	Table 8
WrA	Water-resisting admixture	Table 9
WR + SRA	Set retarding / water reducing / plasticising admixture	Table 10
HRWR + SRA	Set retarding / high range water reducing / superplasticising admixture	Table 11
WR + SAA	Set accelerating / water reducing / plasticising admixture	Table 12
VMA	Viscosifying / viscosity modifying admixture	Table 13

Admixtures that also have important secondary functions can also obtain the certification for two or more categories at the same time. Therefore, it is possible to study the effects of admixtures on concrete, when both fresh and hardened.

In order to see whether the products meet the requirements, the specific tests for each type of admixture must be carried out:

- when the certificate is first issued;
- when a new formula or type of admixture is developed;
- when a modification of the formula could significantly influence the admixture's performance;
- when a modification of the raw material could significantly influence the admixture's performance.

The following table lists the classification of **MAPEI** admixtures for concrete, the abbreviations and the Standard table that defines the minimum requirements.

Classification of admixtures for concrete

ADMIXTURES FOR CONCRETE - EN 943-2		
ADMIXTURES	CLASSIFICATION	TABLE
DYNAMON BT2	HRWR + SRA	11
DYNAMON BT4	HRWR	3
DYNAMON EASY 11	HRWR	3
DYNAMON EASY 21	HRWR + SRA	11
DYNAMON EASY 31	HRWR + SRA	11
DYNAMON EW	WR	2
DYNAMON FLOOR 10	HRWR + SAA	3 + 6
DYNAMON FLOOR 14	HRWR	3 + 7
DYNAMON FLOOR 15	HRWR + HAA	3 + 7
DYNAMON FLOOR 16	HRWR	3
DYNAMON FLOOR 20	HRWR	3
DYNAMON FLOOR 25	HRWR	3
DYNAMON HAA	HAA	7
DYNAMON HS 2010	HRWR + HAA	3 + 7
DYNAMON HS 2020	HRWR + HAA	3 + 7
DYNAMON HS 2030	HRWR + HAA	3 + 7
DYNAMON HS 2040	HRWR + HAA	3 + 7
DYNAMON HS 2050	HRWR + HAA	3 + 7
DYNAMON NRG 1010	HRWR + HAA	3 + 7
DYNAMON NRG 1012	HRWR + HAA	3 + 7
DYNAMON NRG 1014	HRWR + HAA	3 + 7
DYNAMON NRG 1015	HRWR + HAA	3 + 7
DYNAMON NRG 1015 SV	HRWR + HAA	3 + 7
DYNAMON NRG 1018	HRWR + HAA	3 + 7
DYNAMON NRG 1020	HRWR + HAA	3 + 7
DYNAMON NRG 1024	HRWR + HAA	3 + 7
DYNAMON NRG 1030	HRWR + HAA	3 + 7
DYNAMON NRG 1035	HRWR + HAA	3 + 7
DYNAMON NRG 1037	HRWR + HAA	3 + 7
DYNAMON NRG 1039	HRWR + HAA	3 + 7
DYNAMON PW	HRWR	3
DYNAMON RW	WR	2
DYNAMON SP1	HRWR + HAA	3 + 7
DYNAMON SR 1	HRWR	3
DYNAMON SR 3	HRWR + SRA	11
DYNAMON SR 21	HRWR	3
DYNAMON SR 41	HRWR + SRA	11
DYNAMON SR 51	HRWR	3
DYNAMON SR 52	HRWR + SRA	11
DYNAMON SR 54	HRWR	3
DYNAMON SR 56	HRWR + SRA	11
DYNAMON SR 58	HRWR	3
DYNAMON SR 73	HRWR + SRA	11
DYNAMON SR 912	HRWR + SRA	11
DYNAMON SR 914	HRWR	3
DYNAMON SR 916	HRWR + SRA	11
DYNAMON SW	HRWR	3
DYNAMON SX	HRWR	3
DYNAMON SX 12	HRWR + SRA + WRA	11 + 4
DYNAMON SX 14	HRWR + SRA + WRA	11 + 4
DYNAMON SX 22	HRWR + SRA	11
DYNAMON SX 24	HRWR	3
DYNAMON SX 28	HRWR + HAA	3 + 7
DYNAMON SX 32	HRWR + SRA	11
DYNAMON SX 34	HRWR	3
DYNAMON SX 42	HRWR + SRA	11
DYNAMON SX 44	HRWR	3

ADMIXTURES FOR CONCRETE - EN 943-2		
ADMIXTURES	CLASSIFICATION	TABLE
DYNAMON XTEND W100 N	HRWR	3
DYNAMON XTEND W100 R	HRWR + SRA	11
DYNAMON XTEND W200 N	HRWR	3
DYNAMON XTEND W200 R	HRWR + SRA	11
DYNAMON XTEND W202 N	HRWR	3
DYNAMON XTEND W202 R	HRWR + SRA	11
DYNAMON XTEND W300 N	HRWR	3
DYNAMON XTEND W300 R	HRWR + SRA	11
DYNAMON XTEND W301 R	HRWR + SRA	11
DYNAMON XTEND W302 N	HRWR	3
DYNAMON XTEND W302 R	HRWR + SRA	11
DYNAMON XTEND W400 N	HRWR	3
DYNAMON XTEND W400 R	HRWR + SRA	11
DYNAMON XTEND W401 N	HRWR	3
DYNAMON XTEND W401 R	HRWR + SRA	11
DYNAMON XTEND W404 N	HRWR	3
DYNAMON XTEND W404 R	HRWR + SRA	11
DYNAMON XTEND W500 N	HRWR	3
DYNAMON XTEND W500 R	HRWR + SRA	11
EXPANCRETE PLUS	WR	2
IDROCRETE DM	WRA	9
IDROCRETE HP	WRA	9
IDROCRETE KR 1000	WRA	9
IDROCRETE S	WRA	9
MAPEAIR AE 1	AEA	5
MAPEAIR AE 2	AEA	5
MAPEAIR AE 10	AEA	5
MAPEAIR AE 20	AEA	5
MAPECURE SRA 20	WR	2
MAPEFAST C (former Antifreeze liquid)	HAA	7
MAPEFAST CF/L (former Antifreeze S liquid)	HAA	7
MAPEFAST CF/P (former Antifreeze S powder)	HAA	7
MAPEFAST ULTRA	HAA	7
MAPEFLUID N100	HRWR + SRA	11
MAPEFLUID N200	HRWR	3
MAPEFLUID R104	HRWR + SRA	11
MAPEPLAST N10	WR	2
MAPETARD	SRA	8
MAPETARD CBS1	WR + SRA	2 + 8
MAPETARD PLUS	SRA	8
MAPETARD SD 2000	SRA	8
RE-CON AGG 100	WR	2
RE-CON AGG 200	HRWR	3
RE-CON AGG 400	HRWR	3
VIBROMIX C1	WR + HAA	2 + 7
VIBROMIX L1	WR	2
VIBROMIX S	WRA	9
VISCOFLUID SCC/10	VMA	13
VISCOSTAR 3K	VMA	13
ADMIXTURES FOR MORTAR - EN 943-4		
ADMIXTURES	CLASSIFICATION	TABLE
CABLEJET		1
EXPANFLUID		1

High-performance admixtures for concrete

Product classification	Commercial name and description	Application technology
<p>Accelerators (EN 934-2 T.7)</p> <p>Mapei concrete accelerators are designed to reduce setting times and increase the development of the mechanical properties of concrete in the short term, particularly at low temperatures, in order to accelerate finishing operations. Thanks to the rapid development of the concrete's mechanical properties, these accelerators allow formwork to be stripped quickly to optimise overall construction times and maximise profits.</p> <p>Mapei accelerators may also be used to increase concrete's resistance to the action of freezing conditions and allow concrete to be cast when the surrounding temperature is lower than +10°C.</p>	<p>Mapefast C</p> <p>Setting accelerator with chlorides for not reinforced concrete</p>	<ul style="list-style-type: none"> • Concrete in cold climates • Concrete resistant to freezing conditions • Concrete for rapid traffic reopening • Ready-mixed concrete • Precast/pre-stressed concrete
	<p>Mapefast CF/L</p> <p>Chloride-free hardening accelerator for reinforced concrete</p>	
	<p>Mapefast CF/P</p> <p>Chloride-free powdered hardening accelerator for reinforced concrete</p>	
	<p>Dynamon HAA</p> <p>Chloride-free hardening accelerator for reinforced concrete with high initial mechanical strength</p>	
	<p>Mapefast Ultra</p> <p>Chloride-free hardening accelerator for reinforced concrete with high initial mechanical strength, including at low temperatures</p>	
<p>Air-entraining admixtures (EN 934-2 T.5)</p> <p>Air-entraining admixtures from the Mapeair range are designed to have better resistance to freeze-thaw cycles and to produce lightweight concrete and fluid fillers.</p>	<p>Mapeair AE 1</p> <p>Natural air-entraining for concrete resistant to freeze-thaw cycles</p>	<ul style="list-style-type: none"> • Concrete resistant to freeze-thaw cycles • Ready-mixed concrete • Precast/pre-stressed concrete • Lightweight concrete • Fluid filler concrete and mortar
	<p>Mapeair AE 2</p> <p>Synthetic air-entraining for concrete resistant to freeze-thaw cycles</p>	
	<p>Mapeair AE 10</p> <p>Low-concentration natural air-entraining for concrete resistant to freeze-thaw cycles</p>	
	<p>Mapeair AE 20</p> <p>Low-concentration synthetic air-entraining for concrete resistant to freeze-thaw cycles</p>	
	<p>Mapeair LA/L</p> <p>Liquid foam-forming air-entraining for lightweight concrete and fluid fillers</p>	
	<p>Mapeair LA/P</p> <p>Powdered foam-forming air-entraining for lightweight concrete and fluid fillers</p>	
<p>Retardants (EN 934-2 T.8)</p> <p>Retarding admixtures from the Mapetard range allow setting times of concrete to be regulated to improve casting and finishing operations in hot climates.</p>	<p>Mapetard</p> <p>Set retarding admixture</p>	<ul style="list-style-type: none"> • Concrete in hot climates • Pumped concrete • Concrete without construction joints • Roller-compacted concrete
	<p>Mapetard Plus</p> <p>Highly concentrated set retarding admixture</p>	
	<p>Mapetard SD 2000</p> <p>Set retarding admixture</p>	
	<p>Mapetard CBS1</p> <p>Set retarding admixture with a plasticising effect for RCC</p>	

Product classification	Commercial name and description	Application technology
<p>Plasticisers (EN 934-2 T.2) Multi-purpose plasticisers with medium water reduction capacity (EN 934-2 T.2,3,11)</p> <p>Mapei multi-purpose plasticisers are designed for use in standard concrete.</p>	<p>Mapeplast N10 Plasticising admixture with good maintenance of workability</p>	<ul style="list-style-type: none"> • Concrete from low consistency classes • Non-structural precast concrete • Ready-mixed concrete for traditional casting
	<p>Dynamon Easy 11 Polycarboxylate ether-based multi-purpose admixture for casting in cold climates</p>	
	<p>Dynamon Easy 21 Polycarboxylate ether-based multi-purpose retarding admixture</p>	
	<p>Dynamon Easy 31 Polycarboxylate ether-based multi-purpose admixture for casting in hot climates</p>	
	<p>Mapefluid R104 Naphthalene-based multi-purpose superplasticising retarding admixture</p>	
	<p>Mapefluid N100 Naphthalene-based multi-purpose superplasticising admixture</p>	
<p>Polycarboxylate ether-based superplasticisers for ready-mixed concrete with extended workability (EN 934-2 T.11)</p> <p>The Mapei line of polycarboxylate-based superplasticising admixtures for ready-mixed concrete are specifically designed for concrete that requires long transport times and, as a result, extended workability.</p> <p>Dynamon XTend W is the new range of superplasticising admixtures developed in the Mapei Research Centre to provide a concrete solution to all the technical requirements and transport problems connected with the production and delivery of ready-mixed concrete.</p>	<p>Dynamon XTend W100 R Polyhedral superplasticiser with good water reducing properties and good maintenance of workability</p>	<ul style="list-style-type: none"> • Ready-mixed concrete • Concrete in hot climates • Concrete with long delivery times • Concrete for extended concrete casting
	<p>Dynamon XTend W200 R Polyhedral superplasticiser with good water reducing properties and good maintenance of workability</p>	
	<p>Dynamon XTend W202 R Polyhedral superplasticiser with good water reducing properties and good maintenance of workability</p>	
	<p>Dynamon XTend W300 R Highly effective superplasticiser for all concrete mixes with extended maintenance of workability</p>	
	<p>Dynamon XTend W301 R Highly effective superplasticiser for all concrete mixes with extended maintenance of workability</p>	
	<p>Dynamon XTend W302 R Highly effective superplasticiser for all concrete mixes with extended maintenance of workability</p>	
	<p>Dynamon XTend W400 R Highly effective superplasticiser for all concrete mixes with extended maintenance of workability</p>	
	<p>Dynamon XTend W401 R Highly effective superplasticiser for concrete with extended maintenance of workability</p>	

High-performance admixtures for concrete

Product classification	Commercial name and description	Application technology
<p>Polycarboxylate ether-based superplasticisers for ready-mixed concrete with extended workability (EN 934-2 T.11)</p> <p>The Mapei line of polycarboxylate-based superplasticising admixtures for ready-mixed concrete are specifically designed for concrete that requires long transport times and, as a result, extended workability.</p> <p>Dynamon XTend W is the new range of superplasticising admixtures developed in the Mapei Research Centre to provide a concrete solution to all the technical requirements and transport problems connected with the production and delivery of ready-mixed concrete.</p>	<p>Dyanmon XTend W404 R Highly effective superplasticiser for all concrete mixes with extended maintenance of workability</p>	<ul style="list-style-type: none"> • Ready-mixed concrete • Concrete in hot climates • Concrete with long delivery times • Concrete for extended concrete casting
	<p>Dynamon XTend W500 R Highly effective superplasticiser for all concrete mixes with extended maintenance of workability</p>	
	<p>Dynamon SR 41 Superplasticising retardant for low water/cement ratio with excellent maintenance of workability</p>	
	<p>Dynamon SR 52 Superplasticising retardant for low water/cement ratio with excellent maintenance of workability</p>	
	<p>Dynamon BT2 Superplasticising retardant for concrete with little loss in workability</p>	
	<p>Dynamon SR 56 Superplasticising retardant for low water/cement ratio with excellent maintenance of workability</p>	
	<p>Dynamon SR 912 Superplasticising retardant for low water/cement ratio with excellent maintenance of workability</p>	
	<p>Dynamon SR 916 Superplasticiser for low water/cement ratio with excellent maintenance of workability</p>	
	<p>Dynamon SX 22 Superplasticising retardant for low water/cement ratio with excellent maintenance of workability</p>	
	<p>Dynamon SX 32 Superplasticising retardant for low water/cement ratio with excellent maintenance of workability</p>	
	<p>Dynamon SX 42 Superplasticising retardant for low water/cement ratio with excellent maintenance of workability</p>	
	<p>Dynamon EW Controlled release kinetics profile admixture to extend workability</p>	
	<p>Dynamon SW Controlled release kinetics profile admixture to extend workability</p>	
<p>Dynamon PW Controlled release kinetics profile admixture to extend workability</p>		
<p>Dynamon RW Controlled release kinetics profile admixture to extend workability</p>		

Product classification	Commercial name and description	Application technology
<p>Polycarboxylate ether-based superplasticisers for concrete used to make floors (EN 934-2 T.3,11,4)</p> <p>To meet the requirements and overcome problems associated with concrete used to make floors for the industrial and commercial sectors, Mapei has developed a range of superplasticising admixtures to optimise casting and finishing operations in various environmental conditions and by controlling floating times of the surface of concrete. Admixtures from the Dynamon Floor line are integral components of the Mapecrete System for industrial flooring without contraction joints and may be used in combination with Mapefibre polymer fibres to make fibre-reinforced concrete.</p>	<p>Dynamon Floor 10 Highly effective superplasticising set accelerator for internal and external floors at low temperatures</p>	<ul style="list-style-type: none"> • Industrial floors • Commercial floors • Airport runways and road surfaces
	<p>Dynamon Floor 14 Acrylic-based superplasticiser for concrete floors, with wide range of dosage, for cold weather conditions</p>	
	<p>Dynamon Floor 15 Acrylic-based superplasticising accelerator for concrete floors</p>	
	<p>Dynamon Floor 16 Acrylic-based superplasticiser for concrete floor, for hot weather conditions</p>	
	<p>Dynamon Floor 20 Superplasticising set accelerator for internal and external floors in hot weather</p>	
	<p>Dynamon Floor 25 Acrylic-based superplasticiser for concrete industrial floors</p>	
	<p>Dynamon SX 14 Superplasticiser for low water/cement ratio with good maintenance of workability; with additional fine content</p>	
<p>Polycarboxylate ether-based superplasticisers for high durability and high mechanical properties (EN 934-2 T.3)</p> <p>To make structures that guarantee the highest standards of quality in terms of the durability of concrete, Mapei proposes a range of polycarboxylate-based superplasticising admixtures from the Dynamon SR and Dynamon SX ranges. These admixtures have special formulations which make them particularly suitable for producing self-compacting concrete.</p>	<p>Dynamon SR 3 Superplasticiser for low water/cement ratio with excellent maintenance of workability</p>	<ul style="list-style-type: none"> • Concrete for infrastructures • Concrete with high durability • High-strength concrete • Self-compacting concrete
	<p>Dynamon SR 1 Neutral superplasticiser for low water/cement ratio with good maintenance of workability</p>	
	<p>Dynamon SR 21 Superplasticiser for low water/cement ratio with good maintenance of workability</p>	
	<p>Dynamon SX Superplasticiser for low water/cement ratio with good maintenance of workability</p>	
	<p>Dynamon SR 51 Superplasticiser for low water/cement ratio with good maintenance of workability</p>	
	<p>Dynamon SX 12 Superplasticising retardant for low water/cement ratio with excellent maintenance of workability</p>	
	<p>Dynamon SR 54 Superplasticiser for low water/cement ratio with good maintenance of workability</p>	

High-performance admixtures for concrete

Product classification	Commercial name and description	Application technology
<p>Polycarboxylate ether-based superplasticisers for high durability and high mechanical properties (EN 934-2 T.3)</p> <p>To make structures that guarantee the highest standards of quality in terms of the durability of concrete, Mapei proposes a range of polycarboxylate-based superplasticising admixtures from the Dynamon SR and Dynamon SX ranges. These admixtures have special formulations which make them particularly suitable for producing self-compacting concrete.</p>	<p>Dynamon SR 58 Neutral superplasticiser for low water/cement ratio with good maintenance of workability</p>	<ul style="list-style-type: none"> • Concrete for infrastructures • Concrete with high durability • High-strength concrete • Self-compacting concrete
	<p>Dynamon SR 914 Superplasticiser for low water/cement ratio with good maintenance of workability</p>	
	<p>Dynamon SX 24 Superplasticiser for low water/cement ratio with good maintenance of workability</p>	
	<p>Dynamon SX 28 Superplasticising accelerator for ready-mixed concrete with a high reduction of mixing water</p>	
	<p>Dynamon SX 34 Neutral superplasticiser for low water/cement ratio with good maintenance of workability; with additional fine content</p>	
	<p>Dynamon SX 44 Neutral superplasticiser for low water/cement ratio with good maintenance of workability</p>	
	<p>Dynamon BT4 Superplasticiser for ready-mixed concrete</p>	
	<p>Dynamon SR 73 Superplasticiser for ready-mixed concrete with extended maintenance of workability</p>	
	<p>Dynamon XTend W100 N Polyhedral superplasticiser with good water reducing properties</p>	
	<p>Dynamon XTend W200 N Polyhedral superplasticiser with good water reducing properties</p>	
	<p>Dynamon XTend W202 N Workability extending superplasticiser in hot weather (up to 2 hours) without using delaying setting times</p>	
	<p>Dynamon XTend W300 N Highly effective superplasticiser for all concrete mixes</p>	
<p>Dynamon XTend W302 N Highly effective superplasticiser for all concrete mixes</p>		

Product classification	Commercial name and description	Application technology
<p>Polycarboxylate ether-based superplasticisers for high durability and high mechanical properties (EN 934-2 T.3)</p> <p>To make structures that guarantee the highest standards of quality in terms of the durability of concrete, Mapei proposes a range of polycarboxylate-based superplasticising admixtures from the Dynamon SR and Dynamon SX ranges. These admixtures have special formulations which make them particularly suitable for producing self-compacting concrete.</p>	<p>Dynamon XTend W400 N Highly effective superplasticiser for all concrete mixes</p>	<ul style="list-style-type: none"> • Concrete for infrastructures • Concrete with high durability • High-strength concrete • Self-compacting concrete
	<p>Dynamon XTend W401 N Highly effective superplasticiser for all concrete mixes</p>	
	<p>Dynamon XTend W404 N Highly effective superplasticiser for all concrete mixes</p>	
	<p>Dynamon XTend W500 N Highly effective superplasticiser for all concrete mixes</p>	
<p>Plasticisers for extruded and vibro-compressed concrete (EN 934-2 T.2,7,9)</p> <p>Vibromix is the Mapei range of admixtures specifically designed to optimise the production phases of concrete components.</p>	<p>Vibromix C1 High-quality plasticising hardening accelerator</p>	<ul style="list-style-type: none"> • Screed-consistency concrete • Concrete blocks • Self-locking blocks • Manholes • Roadside kerbing • Pipes
	<p>Vibromix L1 Plasticiser for screed-consistency concrete</p>	
	<p>Vibromix S Highly effective water-resisting plasticiser for components with no water absorption and no efflorescence</p>	
<p>Superplasticisers for normal and pre-stressed precast elements (EN 934-2 T.3,7)</p> <p>To make precast elements from normal reinforced concrete and pre-stressed reinforced concrete, Mapei has developed the Dynamon NRG line of polycarboxylate ether-based superplasticising admixtures. The superplasticisers from the Dynamon NRG line are designed to progressively and completely eliminate steam curing and, as a result, increase the durability of structures made from this type of concrete. The performance characteristics of Dynamon NRG admixtures make them particularly suitable for use in the production of self-compacting concrete, in that they are able to guarantee a high degree of fluidity of the mix without the negative effects associated with the excessive viscosity of fresh concrete.</p>	<p>Dynamon NRG 1010 Superplasticising accelerator for extremely quick stripping operations (6-8 hours) without steam curing</p>	<ul style="list-style-type: none"> • Structural precast concrete • Panels and pillars • Roofing tiles • Pre-stressed beams • Precast segments for road and rail tunnels
	<p>Dynamon NRG 1012 Superplasticising accelerator for quick stripping operations (16-18 hours) without steam curing</p>	
	<p>Dynamon NRG 1014 Superplasticising accelerator for quick stripping operations (16-18 hours) without steam curing and viscosifying agent for SCC</p>	
	<p>Dynamon NRG 1015 Superplasticising hardening accelerator for precast concrete</p>	
	<p>Dynamon NRG 1015 SV Superplasticising hardening accelerator for precast concrete</p>	
	<p>Dynamon NRG 1018 Superplasticising hardening accelerator for quick-stripping of precast concrete</p>	
	<p>Dynamon NRG 1020 Highly effective superplasticising accelerator for extremely quick stripping operations (6-8 hours) without steam curing</p>	

High-performance admixtures for concrete

Product classification	Commercial name and description	Application technology
<p>Superplasticisers for normal and pre-stressed precast elements (EN 934-2 T.3,7)</p> <p>To make precast elements from normal reinforced concrete and pre-stressed reinforced concrete, Mapei has developed the Dynamon NRG line of polycarboxylate ether-based superplasticising admixtures. The superplasticisers from the Dynamon NRG line are designed to progressively and completely eliminate steam curing and, as a result, increase the durability of structures made from this type of concrete. The performance characteristics of Dynamon NRG admixtures make them particularly suitable for use in the production of self-compacting concrete, in that they are able to guarantee a high degree of fluidity of the mix without the negative effects associated with the excessive viscosity of fresh concrete.</p>	<p>Dynamon NRG 1024 Superplasticising hardening accelerator with additional fine content for precast concrete</p>	<ul style="list-style-type: none"> • Structural precast concrete • Panels and pillars • Roofing tiles • Pre-stressed beams • Precast segments for road and rail tunnels
	<p>Dynamon NRG 1030 Superplasticiser for precast concrete</p>	
	<p>Dynamon NRG 1035 Superplasticiser for precast concrete with high development of mechanical properties at early strength</p>	
	<p>Dynamon NRG 1037 Superplasticiser for precast concrete with extended maintenance of workability</p>	
	<p>Dynamon NRG 1039 Superplasticiser for precast concrete with very high development of mechanical properties at early strength</p>	
	<p>Dynamon SPI Superplasticiser for very low water/cement ratio with a good maintenance of workability also suitable for steam curing</p>	
<p>Mapefluid N200 Naphthalene-based superplasticiser for concrete</p>		
<p>Superplasticisers for normal precast elements (EN 934-2 T.3,7)</p> <p>To make precast elements from normal reinforced concrete Mapei offers the Dynamon HS line of polycarboxylate ether-based superplasticising admixtures. Dynamon HS superplasticisers improve surface finishing operations and ensure high mechanical strength without affecting workability times. The superplasticisers from the Dynamon HS line are also suitable for producing self-compacting concrete.</p>	<p>Dynamon HS 2010 Superplasticiser for precast concrete with good maintenance of workability and excellent visual appearance</p>	<ul style="list-style-type: none"> • Structural precast concrete • Non-structural precast concrete • Panels and pillars • Roofing tiles • Precast segments for road and rail tunnels
	<p>Dynamon HS 2020 Superplasticiser for precast concrete with high development of mechanical properties at early strength</p>	
	<p>Dynamon HS 2030 Superplasticiser for precast concrete with extended maintenance of workability</p>	
	<p>Dynamon HS 2040 Superplasticiser for precast concrete with very high development of mechanical properties at early strength</p>	
	<p>Dynamon HS 2050 Polycarboxylate ether-based superplasticising hardening accelerator for precast concrete with high initial mechanical strength</p>	

Special products for concrete

Product classification	Commercial name and description	Application technology
Viscosity modifiers (EN 934-2 T.13) Mapei viscosity modifying admixtures are designed to control surface bleeding and segregation in self-compacting concrete mixes.	Viscostar 3K Multi-purpose viscosifying admixture for the production of self-compacting concrete without fillers	<ul style="list-style-type: none"> • Self-compacting concrete • Concrete with a low fine content • Pumped concrete
	Viscofluid SCC/10 Viscosifying admixture for the production of self-compacting concrete	
Anti-washout admixtures These admixtures permit concrete to be placed in running water without the risk of leaching or losing material.	Mapeplast UW Powdered cohesion-inducing admixture for placing underwater concrete with no leaching	<ul style="list-style-type: none"> • Underwater concrete
Mass water-resisting admixtures (EN 934-2 T.9) For the production of concrete blocks and self-locking blocks, Mapei has created a specific line of products that drastically reduce water absorption and efflorescence phenomenon to guarantee uniform colour and resistance to bad weather conditions.	Idrocrete DM Water-resisting admixture for concrete and mortar with low water absorption and no efflorescence	<ul style="list-style-type: none"> • Concrete blocks • Self-locking blocks • Concrete with low water absorption
	Idrocrete HP Liquid water-resisting admixture for concrete	
	Idrocrete S Water-resisting admixture for concrete and mortar with low water absorption and no efflorescence	
Mass crystallising waterproofing admixtures (EN 934-2 T.9) Admixtures to reduce the permeability of concrete through a process of secondary crystallisation within the pores of concrete.	Idrocrete KR 1000 Powdered crystallising admixture for waterproof concrete	<ul style="list-style-type: none"> • Concrete for foundations • Concrete for retaining walls • Concrete for storage tanks • Concrete for white water basins
Air-detraining admixtures To improve the finish of exposed concrete.	Mapeair Zero Air-detraining admixture for concrete	<ul style="list-style-type: none"> • Exposed concrete • Concrete with excess entrained air
Pozzolanic mineral additives Mineral-based admixtures to improve the performance characteristics and durability of concrete.	Mapeplast SF Powdered Pozzolanic silica fume-based component for concrete mixes	<ul style="list-style-type: none"> • Concrete used for bulk casting • Highly durable concrete • High mechanical performance concrete
	Mapeplast PZ300 Powdered high Pozzolanic additive made from micronised components	
	Mapeplast PZ500 Powdered Pozzolanic silica fume-based neutral superplasticiser for high-quality concrete	
	Mapeplast PZ504 Powdered Pozzolanic silica fume-based superplasticising retardant for high-quality concrete	

Special products for concrete

Product classification	Commercial name and description	Application technology
<p>Expansive admixtures</p> <p>Powdered admixtures that allow hygrometric shrinkage compensation through a process of expansion during its initial hardening phase.</p> <p>Expancrete admixtures are part of the Mapecrete System for industrial concrete flooring without contraction joints.</p>	<p>Expancrete</p> <p>Powdered expansive agent for shrinkage-compensating concrete</p>	<ul style="list-style-type: none"> • Shrinkage-compensating concrete • Concrete for renovation work • Concrete for industrial flooring without joints made using Mapecrete System technology
	<p>Expancrete Plus</p> <p>Powdered expansive agent with a slight plasticising effect for shrinkage-compensating concrete</p>	
	<p>Expanfluid</p> <p>Powdered expansive admixture for injected slurry</p>	
	<p>Cablejet</p> <p>Powdered plasticising and expansive admixture for fluid and no-shrinkage injected slurry</p>	
<p>Shrinkage-reducing admixtures</p> <p>Liquid admixtures that drastically reduce hygrometric shrinkage by acting on the surface tension of water contained within capillary pores.</p> <p>Admixtures from the Mapecure SRA line are part of the Mapecrete System for industrial concrete flooring without contraction joints.</p>	<p>Mapecure SRA</p> <p>Admixture to reduce hydraulic shrinkage and the formation of cracks in shrinkage-compensating mortar and concrete</p>	<ul style="list-style-type: none"> • Concrete with low hygrometric shrinkage • Concrete for industrial flooring without joints made using Mapecrete System technology • Concrete at risk of shrinkage cracks formation
	<p>Mapecure SRA 25</p> <p>Admixture to reduce hydraulic shrinkage and the formation of cracks for shrinkage-compensating concrete and floors without joints</p>	
	<p>Mapecure SRA 20</p> <p>Admixture with a slight plasticising effect to reduce hygrometric shrinkage and the formation of cracks for shrinkage-compensating concrete and flooring without joints</p>	
<p>Concrete pumping aid admixtures</p> <p>Admixtures to increase the viscosity of mixing water contained within concrete and improve its pumpability.</p>	<p>Mapeplast PMX</p> <p>Admixture for enhancing the pumpability of concrete</p>	<ul style="list-style-type: none"> • Pumped concrete • Concrete with a low fine content
<p>Admixtures for pervious concrete</p> <p>Admixtures to improve adhesion between cement paste and aggregates.</p>	<p>Mapecrete Drain L</p> <p>Liquid admixture for making pervious concrete</p>	<ul style="list-style-type: none"> • Concrete for footpaths • Concrete for cycle tracks and lanes • Concrete for sub-layers for roads • Concrete for permeable blocks • Road gutters
	<p>Mapecrete Drain P</p> <p>Powdered admixture for making pervious concrete</p>	

Product classification	Commercial name and description	Application technology
<p>Polymeric fibres</p> <p>Synthetic micro and macro fibres to reduce the effect of plastic shrinkage and to strengthen structures to improve their post-cracking residual flexural tensile strength.</p>	<p>Mapecibre AT 06 FP Micro polypropilene fibres for fire-resistant concrete</p>	<ul style="list-style-type: none"> • Fibre-reinforced concrete • Concrete at risk of cracking due to plastic shrinkage • Fire-resistant concrete
	<p>Mapecibre AT 12/18 FP Micro polypropilene fibres for fire-resistant concrete</p>	
	<p>Mapecibre NS12 Anti-shrinkage polypropylene fibres to reduce cracking</p>	
	<p>Mapecibre NS18 Anti-shrinkage polypropylene fibres to reduce cracking</p>	
	<p>Mapecibre NS18 Polymesh 18 mm-long, virgin polypropylene fibrillated fibres for concrete</p>	
	<p>Mapecibre ST30 30 mm structural polymer fibres used as a substitute for reinforcing mesh in traditional flooring</p>	
	<p>Mapecibre ST42 42 mm structural polymer fibres used as a substitute for reinforcing mesh in traditional floors</p>	
<p>Mapecibre ST50 Twisted 50 mm structural monofilament polymer fibres for increasing the ductility of concrete for industrial floors</p>		
<p>Screed products</p> <p>Line of admixtures and synthetic fibres specific for making cementitious screeds.</p>	<p>Mapescreed Advance Finish Evaporation retardant and finishing aid for cementitious screeds</p>	<ul style="list-style-type: none"> • Cementitious screeds
	<p>Mapescreed Advance HR Admixture for high-strength, quick-drying, controlled-shrinkage, cementitious screed mortar with a semi-dry consistency</p>	
	<p>Mapescreed Advance MR Admixture for medium-strength, quick-drying, controlled-shrinkage, cementitious screed mortar with a semi-dry consistency</p>	
	<p>Mapescreed Advance Slowset Admixture for cementitious screed mortar with a semi-dry consistency and extended workability for hot weather conditions</p>	
	<p>Mapescreed HF Gel Gel admixture for ready-mixed and site-mixed high-strength cementitious screeds with low hygrometric shrinkage</p>	
	<p>Mapecibre Screed 24 Polymer fibres for screeds</p>	

Special products for concrete

Product classification	Commercial name and description	Application technology
<p>Products for sustainable concrete</p> <p>A line of admixtures specific for reusing leftover concrete returned from sites and the production of sustainable concrete by using recycled aggregates and aggregates with a high fine content.</p>	<p>Re-Con Zero Two-component powdered component for recovering all leftover concrete</p>	<ul style="list-style-type: none"> • Recovering returned concrete from jobsites • Concrete with recycled aggregates • Recovering water used to wash mixer trucks • Concrete with clay aggregates
	<p>Re-Con Zero Evo Two-component powdered component for recovering all leftover concrete from mixer trucks</p>	
	<p>Mapeclean Recycler Admixture to recover water from the mixer truck cleaning process</p>	
	<p>Re-Con Zero Booster Granulation aid for returned concrete</p>	
	<p>Re-Con Agg 100 Absorption-inhibiting plasticising admixture for sustainable concrete containing recycled aggregates</p>	
	<p>Re-Con Agg 200 High water reducing and absorption-inhibiting plasticising admixture for sustainable concrete containing recycled aggregates</p>	
<p>Curing products</p> <p>Film-forming products applied to the surface of wet concrete to reduce water evaporation and improve curing.</p>	<p>Mapecure E Film-forming curing agent in water emulsion to protect the surface of concrete against rapid evaporation of mixing water</p>	<ul style="list-style-type: none"> • Concrete with a highly exposed area • Industrial flooring • Foundations • Road surfaces • Road surfaces in airports
	<p>Mapecure S Solvent-based film-forming curing agent to protect the surface of concrete against rapid evaporation of mixing water</p>	
	<p>Mapecure WG Water-based film-forming curing agent for mortar and concrete</p>	
	<p>Mapecure E 30 Anti-evaporation agent in water emulsion to prevent the surface of concrete drying too quickly when exposed to sunlight and wind</p>	
<p>Surface finishing products</p> <p>Film-forming admixture to improve surface finishing operations during hot and windy weather.</p>	<p>Mapecrete Film Evaporation retarding agent and surface finishing aid</p>	<ul style="list-style-type: none"> • Industrial flooring • Road surfaces • Road surfaces in airports

Product classification	Commercial name and description	Application technology
<p>Form-release agents for concrete</p> <p>A complete line of products designed and developed by Mapei to supply a solution to problems associated with stripping concrete in the precast concrete industry and on site. The products from the Mapeform Eco line in particular drastically improve the surface finish of fair-faced concrete.</p>	<p>DMA 1000 Emulsifying form-release agent for all types of wooden formwork</p>	<ul style="list-style-type: none"> • Precast concrete industry • Jobsites • Fair-faced concrete • Concrete components
	<p>DMA 2000 Multi-purpose chemical-physical action form-release agent</p>	
	<p>Mapeform 1200 Form-release agent specific for rapid stripping of formwork</p>	
	<p>Mapeform 1400 Multi-purpose form-release agent for hot formwork</p>	
	<p>Mapeform 1500 Multi-purpose low-viscosity chemical-physical action form-release agent</p>	
	<p>Mapeform Eco 31 Chemical-action vegetable oil-based form-release solution in water emulsion to improve the finish of fair-faced concrete</p>	
	<p>Mapeform Eco Plus Chemical-action synthetic oil-based form-release solution in water emulsion to improve the finish of fair-faced concrete</p>	
	<p>Mapeform Eco Oil Multi-purpose vegetable oil-based form-release solution in water emulsion for metal and plastic formwork suitable for steam curing</p>	
	<p>Mapeform Eco Oil LV Low-viscosity vegetable oil-based form-release agent</p>	
	<p>Mapeform HT High-viscosity form-release agent for formwork subject to high temperatures</p>	
<p>Mapeform W60 Ready-to-use universal form-release agent for any type of formwork</p>		

EVERYTHING'S OK WITH MAPEI

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