

A Guide to **Precast** Products



1. Precast concrete admixture

Dynamon SR1380

- Hyperplasticising admixture based on new generation of polycarboxylate ether for high performance concrete mixes with very low water cement ratios, high early compressive strengths, specially designed to improve the rheology of precast concrete.
- A chloride free hyperplasticising admixture formulated from technologically advanced molecular chains of polymer modified polycarboxylate.
- Reduces the water/cement ratio with excellent improvements in the fresh and hardened concrete properties.



Dynamon PC1100

- Special hyperplasticizing admixture for high quality precast concrete & hollow core slabs.
- A chloride free superplasticizing admixture formulated from polycarboxylate polymer.
- Reduces the water/cement ratio with excellent improvements in fresh and hardened concrete properties.



Dynamon SP5610

- Hyperplasticising admixture based on new generation of polycarboxylate ether for high performance concrete mixes with very low water cement ratios, high early compressive strengths, particularly suitable for hollow core production.
- A chloride free hyperplasticising admixture based on the new generation of polycarboxylate ether molecules.
- Specifically designed for the production of high performance semi-dry concrete mixes by significantly reducing water/cement ratio and greatly improves bottom finish while providing superior overall aesthetics. In particular it will enable high early and compressive strengths to be achieved.



Mapefluid N600

- High range water reducing superplasticizer for all types of high durability concretes.
- A chloride free superplasticizing admixture formulated from synthetic polymers.
- Reduces the water/cement ratio with excellent improvements in the fresh and hardened concrete properties. It is particularly designed for meeting all the specifications required in all kinds of self-leveling concrete production. The product is specially formulated for the precast industry.



Mapefluid N400 PC

- High range water reducing superplasticizer for high strength concrete and concrete containing high proportions of cement replacement material.
- A chloride free superplasticizing admixture based on synthetic polymers to produce high quality durable concrete.
- Reduces the water/cement ratio with excellent improvements in both fresh and hardened concrete properties. In particular designed for meeting all the specifications required for high content GGBS, PFA and silica fume mixes.



Mapeform Eco 31

- Form release-agent based on vegetable oils in water emulsion with chemical action.
- Anti-adhesive treatment of iron, aluminum and plastic forms (epoxy, phenolic, polyster and polyurethane resins).
- It is particularly suitable for architectural concrete structures where the best appearance of concrete surfaces is requested.



Vibromix S

- High-efficiency water-repellent admixture for vibro-compressed and extruded concrete with dry consistency.
- Particularly suitable for blocks, self-locking pieces, pipes & manholes.
- It does not excessively modify the rheology of the fresh concrete, and may be introduced into the production cycle without taking any particular precautions.



Expacrete

- Expansive agent for shrinkage-compensated concrete.
- A powdered inorganic product to be added to the other ingredients of concrete to compensate for drying shrinkage.
- For the production of shrinkage-compensated concrete and mortar.



Mapeplast LA Liquid

- Liquid admixture for lightweight mortars and concretes.
- Foaming action for entraining high volumes of air in cementitious mixtures, especially recommended for producing easily pumpable lightweight mortars and concretes.



Mapeplast LA Powder

- Additive for fluid pumpable fill and light mortar concrete.
- Form of spherical micro-bubbles, produces light mortar and concrete with remarkable flow properties (high fluidity) and high stability (absence of segregation)



2. Anchoring with expansive mortars and fixing with rapid setting binders

Mapefill GP ME

- General purpose non-shrink cementitious grout.
- It is recommended for grouting voids in structural elements such as; honeycombs in concrete, filling gaps in precast elements, and grouting base plates and bridge bearing.



Mapefill SP ME

- Premium super flow non-shrink cementitious grout.
- It is recommended for precision anchoring of machinery, steel and concrete structures.



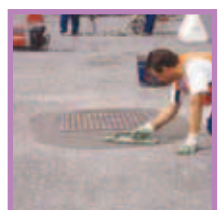
Mapegrout ME05

- High performance, shrinkage compensated, high-flow micro-concrete and thick section grout.
- It is used for pile top treatment and re-profiling, column jacketing, concrete structural repairs and where particular thickness and void configuration requires the use of a high-flow micro-concrete or grout.
- Gouting of precast elements.



Mapegrout SV ME

- Fast setting and hardening controlled shrinkage, easy-flow mortar for repairing concrete and for fixing inspection shafts, manholes and highway dressing materials.
- It is used for repairing badly-damaged concrete structures which require the use of high flowing mortars; repairing industrial floorings; rapid fixing of inspection shafts and manholes.



Mapifix VE SF

- Chemical anchor for structural load.
- This product is an adhesive for anchoring; it is a two component, fast setting styrene free product made from mixture of vinylester resin. It is recommended for threaded and corrugated metallic anchors exposed in marine, industrial or aggressive environments, even immersed or in a permanently damp conditions.
- Specific for single or multiple anchors, strengthening of existing structures, rebars, overhead crane and tram rails in cracked and non cracked concrete subjected to static or dynamic loads.



Mapifix EP

- Chemical anchor for structural load.
- This product is an adhesive for anchoring; it is a two component, solvent free product made from pure epoxy resin. It is recommended for all types of anchor with a horizontal, vertical, inclined or overhead axis and in tension or compressed zones, which are subjected to static and dynamic stress; for immersed anchors which are permanently damp, in marine and industrial environments and in areas subjected to chemical aggression; strengthening rods in construction joints; immersed anchors and anchors in damp environments; anchors in marine and industrial environments; industrial motors.



3. Repairing precast concrete with mortars and controlled-shrinkage binders

Mapefer 1K

- One component corrosion-inhibiting cement mortar for the protection or reinforcing rods.
- It is used for corrosion-inhibiting protection of concrete reinforcing rods; adhesion improver for concrete repair mortars.



Mapegrout T60 ME

- Thixotropic, sulphate and chloride resistant, fibre-reinforced structural repair mortar.
- It is used for repair to both new and old concrete structures or reinforced concrete elements subject to aggressive atmospheric conditions including chloride and sulphate attack.



Mapegrout T80

- Single component sulphate and chloride resistant, fibre-reinforced thixotropic mortar for the repair of concrete.
- It is used for repair to both new and old concrete structures or reinforced concrete elements, subject to aggressive atmospheric conditions including chloride and sulphate attack. e.g. all types of structural repair requiring application by trowel or spray; repair of precast structures; repair of load bearing elements such as reinforced columns, pre-stressed or post-tensioned beams and slabs, etc.
- Repairs to precast structures
- Filling of rigid joints (e.g. between base and column, crack in floors, joints between walls, etc.)



Mapegrout ME06

- High strength, shrinkage compensated, super flow micro-concrete.
- It is used for structural repairs state of deterioration requires the use of high flow concrete and for, grouting of gaps with thicknesses ranging from 30 mm to 250 mm.



Monofinish

- Single-component, normal setting cementitious mortar for smoothing concrete and cement based renders.
- It is used for protection and smoothing of concrete surfaces; smoothing surface imperfections in concrete surfaces before painting; smoothing irregular surfaces of cement-based renders.



Planitop G40 ME

- Low shrinkage, polymer modified cementitious repair mortar.
- It is used for repair damaged or degraded concrete to vertical, horizontal or overhead situations where light to medium load bearing performance characteristics are required.



Planitop 110

- Single-component, normal setting cementitious mortar for smoothing concrete surfaces.
- It is used for protection, smoothing and levelling of concrete surface imperfections up to 2 mm in a single application.
- Filling of blow holes and surfaces imperfections in precast units.



Planitop 400 ME

- Shrinkage controlled thixotropic mortar for levelling and restoration of concrete by applying a single layer of mortar at a variable thickness between 2 and 30 mm.
- It is used for deep levelling and restoration of vertical and horizontal concrete surfaces.



4. Repairing cracked precast concrete by injection casting

Epojet

- Two-component epoxy resin for injection.
- It is used for monolithic repair of structures with cracks or fissures caused by heavy loads, accidental impacts and earthquakes; bonding and reinforcement of structures by low pressure injection; precise anchoring of metallic structures. e.g. structural repairs of beams, pillars and fissured by low pressure injection.



Epojet LV

- Two-component epoxy resin, with very low viscosity for injection in micro cracks.
- It is particularly recommended for monolithic sealing of cracks, bonding steel plates to concrete by low pressure injection.



Eporip

- Two-component, solvent-free epoxy adhesive for construction joints and for monolithic sealing of cracks in screeds.
- It is particularly recommended for monolithic construction joints between fresh and hardened concrete, bonding precast concrete elements, bonding steel to concrete, filling cracks in concrete.



Adesilex PG4

- Two-component, thixotropic, epoxy adhesive with modified rheology for bonding **Mapeband TPE**, PVC braces, Hypalon and for structural bonding.
- It is particularly recommended both for bonding synthetic braces used in waterproofing applications and for repairing, sealing and bonding elements in concrete, reinforced concrete, metal and natural stone.



5. Waterproofing

Idrosilex Pronto

- Osmotic cementitious mortar suitable for contact with drinking water, for waterproofing masonry and concrete structures.
- It is used for waterproofing basins, reservoirs, concrete or masonry tanks containing drinking water; renovation of structures subject to water and moisture seepage including underground structures and similar locations subject to negative pressure up to 1 bar; interior and exterior cellar and basement walls.



Mapegum WPS

- Fast drying, liquid elastic membrane for interior waterproofing.
- It is used for waterproofing walls and floors of bathrooms and shower stalls, kitchens and work surfaces, before installing ceramic tiles or natural stone.



Mapelastic

- Two component, flexible cementitious mortar for the protection and waterproofing of concrete surfaces, balconies, terraces, bathrooms, showers and swimming pools.
- It is used for waterproofing protection of concrete structures, renders and cementitious screeds; protection against the penetration of carbon dioxide of concrete elements.



Mapelastic Smart

- Two component, highly flexible cementitious mortar to be applied by brush, roller or spray for the protection and waterproofing concrete surfaces such as balconies, terraces basins and swimming pools, and for protection against aggressive chemical agents.
- It is used to internally and externally waterproof and protect new or repaired concrete structures and cementitious surface in general. Particularly suitable for waterproofing irregular surfaces.



Mapelastic Foundation

- Two-component, elastic cementitious membrane for waterproofing concrete surfaces subject to both positive and negative water pressure.
- It is recommended for foundation walls, car-parks and underground environments, basins, channels and swimming pools.



Mapelastic AquaDefense

- Ready to use, ultra-quick drying, flexible liquid membrane for internal and external waterproofing applications.
- It is used to form waterproofing layers before applying ceramic, stone and mosaic coatings in: balconies and terraces; bathroom and shower cubicles; laundry rooms; saunas and damp environments in general.



Mapetex Sel

- Non-woven, macro-holed polypropylene fabric for reinforcing waterproofing membranes.
- It is used in conjunction with **Mapelastich Smart** for flexible cementitious mortars, to apply waterproofing layers on balconies, terraces, swimming pools, basins, etc.



Mapenet 150

- Alkali-resistant fibre mesh used for reinforce waterproof protection layers, anti-fracture membranes and cementitious smoothing and levelling layers.
- It is used to reinforce strengthening for **Mapelastich** or **Mapelastich Smart** used for waterproofing terraces, balconies, swimming pools, baths, shower cubicles, etc. with ceramic tile or stone finishes; protective, flexible smoothing layers of **Mapelastich** or **Mapelastich Smart** applied on internal and external cementitious substrates with micro cracks.



Mapeband

- Rubber tape with alkali-resistant fabric for cementitious waterproofing systems and liquid membranes.
- It is used for waterproofing corners between adjacent walls and between walls and floors, expansion joints on terraces and balconies, etc. before treating with **Mapelastich** or **Mapelastich Smart**; sealing pipes and drains in bathrooms, showers and kitchens in conjunction with **Mapeband Gasket**; sealing expansion joints in pre-fabricated panels.



6. Joint Sealants

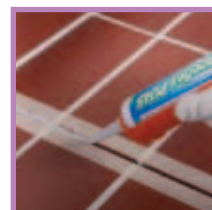
Mapeflex PU40

- Polyurethane sealant with a low modulus of elasticity; available in grey and white. After complete curing paintable with elastomeric paints.
- It has been specially developed for sealing expansion and fraction joints in horizontal and vertical surfaces, including those which are subject to occasional chemical attack by hydrocarbons.



Mapeflex PU45

- Single component, thixotropic, rapid hardening polyurethane sealant and adhesive with a high modulus of elasticity; available in grey and white. After complete curing, paintable with elastomeric paints.
- It has been specially developed for sealing expansion and distribution joints in horizontal and vertical surfaces.



Mapeflex AC4

- One-component water-based acrylic sealant; available in grey and white. After complete curing, paintable with elastomeric paints.
- It is used for sealing expansion and compression joints subjected to medium-scale movements, forming a flexible seal between building components. e.g. seal joints between precast concrete panels with movement up to 12.5%; seals between elements in concrete, plaster, brickwork, light-weight cement, wood, natural stone, etc; sealing joints between insulation panels.



Mapesil AC

- Solvent-free, acetic-cross linking, mildew resistant silicone sealant with low modulus of elasticity, available in 26 colours and transparent.
- This product is used for sealing expansion joints $\pm 25\%$ of the initial joints. It is suitable for sealing glass, ceramic and anodized aluminium. After first having used a bonding enhancer **Primer FD** can also be used on concrete, wood, metal, painted surfaces, plastic and rubber.



Selection Chart

Precast concrete admixture

	Mapeplast LA Powder	Mapeplast LA Liquid	Vibromix S	Expanscrete	Mapeform Eco 31	Mapefluid N 400 PC	Mapefluid N 600	Dynamon SR 1380	Dynamon PC 1100	Dynamon SP 5610	Planicrete
High range water reducing superplasticizer for high strength concrete and concrete containing high proportions of cement replacement materials						*		*		*	
High range water reducing superplasticizer for all types of high durability precast concrete							*	*	*		
Powder additive for fluid pumable fill and light weight concrete	*										
Air entraining admixture for precast concrete	*	*									
Special Hyperplasticizing admixture for high quality precast concrete & Hollow core slabs									*	*	
Hyperplasticizing admixture for high early compressive strengths and for improving precast concrete rheology								*	*	*	
Hyperplasticizing admixture for high performance precast concrete with very low water cement ratios particularly deisgned for HSC							*	*	*	*	
Expanding agent for shrinkage - compensated concrete				*							
Water proofing admixture for precast concrete (grey & colored)			*								
Special release agent for precast architectural concrete			*		*						
Multipurpose latex additive for precast concrete											*

Concrete repair and protection

	Mapefill GP ME	Mapefill SP ME	MapegROUT ME05	MapegROUT SV ME	Mapefix VE SF	Mapefix EP	Mapefer 1 K	MapegROUT T 60 ME	MapegROUT T80	MapegROUT ME06	Monofinish	Planitop G40ME	Planitop 110	Planitop 400 ME	Epojet	Epojet LV	Eporip	Adesilex PG4	Mapelastix	Elastocolor Paint	Antipluvioi
Filling pinholes											*	*	*					*			
Water repellaent coating for precast and structural elements - Sealar coat																					*
Blow holes and minor chipped edges											*	*	*								
Blow holes, minor chipped edges and non-penetrative cracks greater than 0.2 mm and less than 0.3 mm width											*	*	*	*	*	*	*	*			
Penetrative crack greater than 0.2 mm and 9 mm width			*							*											
Minor chipped edges, reprofiling, damaged rises and treads							*	*				*	*	*							
Precast concrete repair							*	*	*	*	*	*	*	*							
Grouting between precast panels and for general purpose	*	*		*																	
Anchor fixing						*	*								*	*	*				
Adding dowel bars					*	*								*	*	*					
Water proof																			*		
Concrete protection aginsit aggressive conditions																			*	*	
Pile Head Treatment			*							*									*	*	
Crack accomodation protective coating																					*

Waterproofing

Sealants

	Idrosilex Pronto	Mapegum WPS	Mapelastix	Mapelastix Smart	Mapelastix Foundation	Mapelastix AquaDefense	Mapeflex PU S25	Mapeflex PU40	Mapeflex PU45	Mapesil AC	Mapesil LM	Mapeflex AC4
Concrete protection against aggressive conditions			*	*	*							
Crack bridging flexible waterproofing			*	*	*							
Bathrooms and wet areas		*	*	*	*	*			*			
Swimming pool			*	*	*	*			*			
Water tanks	*		*	*	*	*		*	*	*		
Planters, podium & terraces			*	*					*			
Waterproofing structures under negative pressure	*				*							
Shallow footings	*											
Pile Head Treatment	*											
Structural joints							*	*	*	*	*	
Construction joint							*	*	*	*	*	
Expansion Joints in industrial Floors							*	*	*	*	*	
Paintable sealant for cracks in mortars and plasters							*	*	*	*	*	*
Windows and door frames sealing									*	*	*	*

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