



LAHTI
PRECISION



**Your partner in the
Dry Mix Industry**

Lahti Precision

Your partner for Dry Mix technology

Lahti Precision has over 100 years of experience in delivering high-precision weighing and dosing systems and components. Today, Lahti Precision is the leading expert in supplying dry mix (plaster and mortar) plants providing high efficiency, precision and flexibility in production.

Lahti Precision started manufacturing scales in 1914.

Today our company is an expert in dosing, weighing and mixing applications supplying batch plants for the glass industry, drymix plants and services globally. Our vast experience in core technology guarantees excellent dosing accuracy and consistent mixing quality. We help our customers to succeed in their own production by working closely together, finding the best solutions for the actual need. This ensures our customers the lowest cost of ownership.





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LAHTI PRECISION STANDS FOR HIGH QUALITY

Lahti Precision, the expert in weighing and dosing, handling of bulk materials, and in related automation, is a forerunner in the dry mix business. Lahti Precision has delivered plants for the industrial production of plasters, mortars and other dry mix products all over the world. The company supplies total plant projects and related services from engineering to commissioning. Lahti Precision has long experience and extensive know-how of dry mix product technology for various climate conditions. Experienced personnel and own laboratories ensure good quality and cost competitive product recipes.



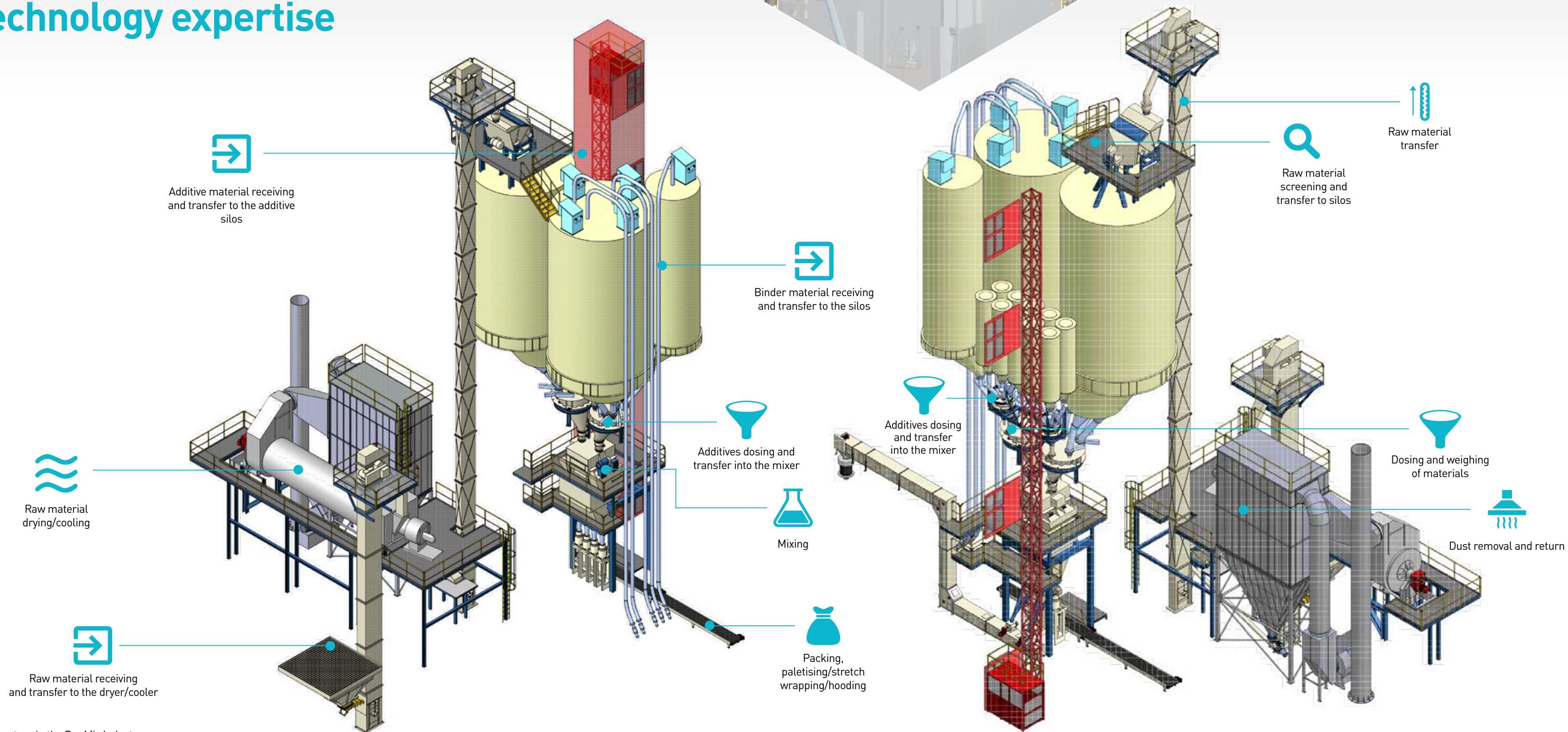
A COMPLETE PACKAGE FOR YOUR DRY MORTAR BUSINESS

Lahti Precision provides a complete package for the plaster and mortar business. The company's knowhow covers the whole business chain from market evaluation and design of suitable product range to the marketing of the final dry mix products. Lahti Precision works closely with the customers to design the production plant to meet the customer's requirements.

WORLD-CLASS OFFERING

- » Complete deliveries of Dry Mix plants and systems
- » Dosing and weighing systems and components
- » Control systems and components
- » Dry Mix plant modernizations and control system upgrades
- » Energy efficiency improvements
- » Wide range of Product Technology and other services

Customized plant solutions through proven process and technology expertise



Ease of use Ease of maintenance



RECEIVING
Raw material intake systems to meet customer requirements

- » Bulk truck discharge
- » Pneumatic discharge from tank trucks
- » Small bag and/or big bag receiving units

DRYING
Efficient and environmental friendly aggregate drying systems.

- » Rotary and fluid bed dryers
- » Robust and reliable constructions
- » Energy efficient systems with minimized emissions

CRUSHING AND SCREENING
Optimized crushing and screening process.

- » Primary and secondary crushing applications
- » Screening and sizing systems
- » Control screening systems

High flexibility and productivity with the lowest possible cost of ownership

DOSING AND WEIGHING
Accurate dosing and weighing based on fluidization technology.

- » Accurate high speed dosing and weighing solutions
- » For various powder materials, also for less easily flowing materials
- » Dosing valve with an extremely large dynamic operating range also available

MIXING
Enhanced mixing efficiency and homogenous mixing especially for dry mix products.

- » Horizontal single or twin shaft batch mixers
- » Wide range of accessories available
- » Robust and service friendly construction

PRODUCT HANDLING
Dispatch of products to meet the customer requirements.

- » Packing in small bags and/or big bags
- » Direct bulk loading or loading through a product silo(s)
- » Loading in to site silo

DUST CONTROL AND VACUUM CLEANING SYSTEM
Environmental friendly systems for clean and safe working environment.

- » Centralized de-dusting and vacuum cleaning system
- » Stand alone silo filters
- » Bag and cartridge type filters

LAHTI CONTROL SYSTEM
Advanced modular user-friendly control system.

- » Complete process control
- » Human-machine interface
- » Batch controllers or weighing transmitters
- » Batch Information Management System (BIMS)

DRY MIX PLANT DESIGN
Own dry mix plant design to meet the customer requirements.

- » In-house 3D engineering
- » Own patented silo discharge and dosing system engineering
- » Extremely compact plant design based on fluidization technology



Product technology services



MASONRY MORTARS

Product Data	Masonry mortars			
	Masonry Mortar Lime cement based	Masonry Mortar Masonry cement based	Frost Mortar	Thin Joint Mortar
Color	Grey	Grey	Grey	Grey
Max. particle size , mm	3	3	3	0.6
Mixed mortar , litres/(25 kg bag), approx.	14 - 15	14 - 15	13 - 14	
Consumption , on average	1.4 - 1.7 kg/normal brick	1.4 - 1.7 kg/normal brick	4-6 kg/expanded clay block	2-3 kg/m ² /joint area
Application	Laying of clay- and calcium silicate bricks.	Laying of blocks and bricks.	Laying of blocks in freezing cold conditions.	Thin joint masonry of calcium silicate bricks and aerated light-weight concrete blocks.

THIN WALL PLASTERS

Product Data	Cement based		
	Block Plaster	Base C	Finish C
Color	Grey	White/Grey	White/Grey
Max. particle size , mm	1	0.6	0.3
Mixed mortar , litres/(25 kg bag), approx.	21	22	23
Consumption , kg/m ² /mm, on average	1.5	1.2 - 1.3	1.1-1.2
Application	Water resistant medium coarse cement based thinwall plaster for patching, filling and straightening of block and concrete surfaces.	Water resistant cement based medium fine thinwall-plaster for levelling of concrete surfaces.	Water resistant cement based finishing thin-wall plaster.

TILE INSTALLATION MATERIALS

Product Data	Tile Adhesives			
	Tile Fix	Renovation Fix	Floor Fix	Fast Setting Fix
Color	Grey	Grey	Grey	White/Grey
Max. particle size , mm	0.6	0.6	1.2	0.6
Consumption , kg/m ² , on average	3-4	3-4	5-6	3-4
Application	Cementitious adhesive for installation of porous and vitreous tiles on walls and floors.	Cementitious adhesive for installation of porous and vitreous tiles on walls and floors in renovation works (e.g. tile-on-tile).	Cementitious adhesive for installation of floortiles.	Fast setting cementitious adhesive for installation of porous and vitreous wall and floor tiles. Also for renovation (e.g. tile-on-tile).

Note: The product chart illustrates a summary of typical DRY MIX products and their applications, and is for general guidance only. These vary in practise depending on local climate conditions, codes of practise and available raw materials.

MASONRY MORTARS

Coloured		Pointing		Fire place mortars		
Masonry Mortar White	Masonry Mortar Coloured	Pointing Mortar White	Pointing Mortar Coloured	Clay Mortar	Fire Resistant Casting Mortar	Fire Resistant Masonry Mortar
White	Antique grey	White	Cement grey	Grey	Dark grey	Grey
3	Antique brown	1.2	Black grey	1.5	5	1.5
14 - 15	Sand brown		Peat brown	15	11-12	12-13
1,4 - 1,7 kg/normal brick	Bark brown		Grain yellow			
	Lime grey	approx. 7 kg/m ² wall area	approx. 7 kg/m ² wall area	0.8-1.0 kg/brick	100 kg/m ² (5 cm)	0.3 kg/refractory brick
	Yellow					
	Black grey					
Laying of white calcium silicate bricks.	Laying of clay and calcium silicate bricks.	Pointing of white calcium silicate brick masonry.	Pointing of clay and calcium silicate brick masonry.	Fire places and chimneys indoor. NOT for laying of refractory bricks.	Casting of fire proof components. Min. thickness 5 cm	Laying of refractory bricks in fire places. Joint width 3 mm

THIN WALL PLASTERS

Synthetic based				Gypsum based		Admixture
Base C	Finish C	Plasterboard Joint Filler	Plasterboard Lightweight Joint Filler	Plasterboard Gypsum Based Joint Filler	Gypsum Veneer Plaster	Plaster Admixture
White	White	Off-white	Off-white	Off-white	Off-white	
0.6	0.3	0.3		0.3		See instructions
24	24	20-22				
1.2 - 1.3	1.1-1.2	1.2 - 1.3	1.0			
Medium fine thinwall plaster for dry interiors.	Finishing thinwall plaster for dry interiors.	Joint filler for gypsum plaster boards.	Light-weight joint filler for gypsum plaster boards.	Hand and machine applied joint filler for gypsum plaster boards.	Hand and machine applied gypsum based plaster for dry interiors.	Admixture for wall plasters. Ready mix wet product.

TILE INSTALLATION MATERIALS

		Tile grouts				Water proofing	
Marble Fix	Waterproof Fix	Tile Grout	Pool Grout	Brick Tile Grout	Silicone Mastic	Moisture Sealer	Sealing Tape
White	Off-white	15 colours	Grey/White/Brown	Grey	15 colours + transparent	Green	Widths: 5/ 7.5/ 10/ 15 cm
0.6		0.3	0.6	1		See instructions	
3-4	approx.4	0.7-1.5	1-2	approx.2	appr. 0.3 ltr/20 m joint length	0.15 - 0.30	
White cementitious adhesive for installation of marble tiles and transparent tiles on walls and on floors.	Waterproof cementitious adhesive with separate components for installation of wall and floor tiles.	Cementitious tile grout for porous and vitreous tiles.	Cementitious tile grout for floor tiles.	Cementitious tile grout for brick tiles and stones labs.	Elastic silicone mastic for sealing of corner and expansion joints.	Brush and roller applicable moisture sealer for walls before tiling. Ready mix wet product.	Bituminous self adhering tape for sealing of joints (e.g. joints between floors and walls before tiling).

The detailed information for the products developed for the local applications is to be written in the manufacturer's technical data sheets and bag texts. The products are delivered to the customer typically in 25 kg, 40 kg or 50 kg paper bags or as bulk delivery in silos.

Product technology services



PLASTERS AND RENDERS							
Product Data	Lime and cement based					Gypsum based	
	Spatterdash	Floating Coat	Final Coat	One coat Premix Plaster	Thick Render	Gypsum Plaster	Gypsum Lime Plaster
Color	Red	Grey	Grey	Grey	Grey	Off-white	Off-white
Max. particle size, mm	4	4	1.2	1.2	3	1	1
Mixed mortar, litres/(25 kg bag), approx.	13-14	15	15	15	15	16	16
Consumption, kg/m², on average	4-5	15-25	10	10	20	15-30	15-30
Application	Spatterdash on back-grounds of clay bricks, calcium silicate bricks, blocks, concrete and lightweight concrete. Aggregate: natural sand or limestone.	Undercoat and dubbing-out mortar. Aggregate: natural sand or limestone.	Final coat mortar. Aggregate: natural sand or limestone.	One coat undercoat. Aggregate: natural sand or limestone.	One coat undercoat. Aggregate: natural sand or limestone.	Machine and hand applied gypsum based plaster for dry interiors. Aggregate: limestone	Machine and hand applied gypsum lime based plaster for dry interiors. Aggregate: limestone



DRY CONCRETE				
Product Data	Dry concrete			Non shrink
	Cement Mortar 0 - 1 mm	Cement Mortar 0 - 3 mm	Cement Mortar 0 - 8 mm	Non-shrink Grout
Max. particle size, mm	1	3	8	3
Mixed mortar, litres/(25 kg bag), approx.	13.5-14	12-13	12-12.5	11-12
Compressive strength, N/mm²	20-25	20-25	20-25	50
Application	Repair of concrete surface defects.	Concrete repairs and small castings.	Weather resistant standard concrete.	Grouting of precast components, anchoring and casting in confined spaces.

Note: The product chart illustrates a summary of typical DRY MIX products and their applications, and is for general guidance only. These vary in practise depending on local climate conditions, codes of practise and available raw materials.

PLASTERS AND RENDERS

Coloured architectural finishings									External thermal ins		
Coloured Final Coat Fine	Coloured Final Coat Medium	Coloured Final Coat Coarse	Facade Coat	Cement Paint	Hydraulic Lime Paint	Lime wash	Butter coat	Rock Chippings	Three coat System	Thin coat System	Light-weight Thermal Insulation Render
Several colours	Several colours	Several colours	Light colours	Light colours	Light colours	White	Grey or coloured	Off-white Red granite Black gabro Pink dolomite Yellow dolomite	Several colours	Light colours	
1.5	2.5	5	1				0.6				
15	17	11-12	12-13				19-20				
4-6	6-10	12-15	2-4	0.4-0.6	0.4-0.5	0.2-0.3	3-4				
Sprayable coloured lime-cement based final coat for textured finishes.	Sprayable coloured lime-cement based final coat for textured finishes.	Sprayable coloured lime-cement based final coat for textured finishes.	Sprayable cement based thin wall render.	Cement based paint.	Hydraulically hardening lime paint.	Slaked lime paste.	Dry dashing of concrete and expanded clay concrete blocks.	Aggregate for dry dash finish.	3-coat rendering system on rockwool thermal insulation.	Fiber reinforced thin-wall rendering system on rockwool or polystyrene thermal insulation.	Polystyrene, vermiculite or perlite based render.

DRY CONCRETE

	Fast set		Special		
Non-shrink Grout High strength	Frost Concrete	Rapid Concrete	Repair Concrete	Shotcrete	Vertical Joint Grout
3	3	3	8	3-5	3
11-12	11-12	12-13	11-12		12-13
80	40	30-40	40	30-60	30
High strength non-shrink grout for machine bases, etc.	For smaller concreting works in freezing conditions down to -15 °C.	Rapid hardening plasticized concrete for casting and repairs.	Casting concrete especially suitable for freeze-thaw-salt exposure. Available also with max. particle size 3 mm.	For repair and strengthening of concrete structures. Alternative to casting in moulds in difficult applications.	Grouting of vertical joints by pumping. Winter versions available, too.

The detailed information for the products developed for the local applications is to be written in the manufacturer's technical data sheets and bag texts. The products are delivered to the customer typically in 25 kg, 40 kg or 50 kg paper bags or as bulk delivery in silos.

Product technology services



SELF LEVEL FLOORING						
Product Data	Primers		Cement based			Anhydrate based
	Primer	Special Primer	Self Level Screed	Self Level Thin	Self Level Fiber	Self Level Anhydrite Gypsum
Color	See instructions	See instructions	Grey	Grey	Grey	Off-white
Max. particle size, mm			1.0	0.5	0.5	1.0
Layer thickness, mm			5-50	4-20	4-30	10-80
Compressive strength, N/mm ²			20	20	20	20
Consumption, kg/m ² , on average			1.6	1.6	1.6	1.4
Application	Priming of substrates and as an admixture in underlayments. Ready mix wet product.	Primer for nonabsorbent substrates. Ready mix wet product.	Cement based coarse pumpable underlayment for concrete floors.	Cement based self levelling pumpable underlayment for concrete floors.	Cement based self levelling pumpable underlayment for renovation purposes.	Anhydrite based pumpable underlayment for concrete floors.



HAND APPLIED FLOOR UNDERLAYMENTS							
Product Data	Primers		Cement based				
	Primer	Special Primer	Fast Set Floor Compound	Fine Smoothing Floor Compound	Medium Smoothing Floor Compound	Coarse Underlayment	Floor Primer Screed
Color	See instructions	See instructions	Grey	Grey	Grey	Off-white	
Max. particle size, mm			0.5	0.3	0.5	3.0	1.0
Layer thickness, mm			2-20	0-5	2-10	10-40	4-20
Compressive strength, N/mm ²			30	20	30	20	20
Consumption, kg/m ² , on average			1.6	1.5	1.5	1.8	1.6
Application	Priming of substrates and as admixture in underlayments. Ready mix wet product.	Primer for nonabsorbent substrates. Ready mix wet product.	Cement based fast setting and rapid drying compound for concrete substrates.	Cement based smoothing compound for concrete substrates.	Cement based fast setting and rapid drying smoothing compound for concrete substrates.	Cement based coarse underlayment for concrete substrates.	Cement based underlayment for concrete substrates.



SPECIAL PRODUCTS					
Product Data	Repair works			Fire protection	
	Primer	Special Primer	Self Level Screed	Self Level Thin	Self Level Fiber
Color	White	Grey	Grey	White	Grey
Max. particle size, mm	0.3	1	3	0.2	
Application	Cement-based filler for crack width less than 4 mm.	Cement-based filler for crack widths 4-12 mm.	Cement-based repair mortar for up to 40 mm layer thickness.	White 0.2 mm fine putty for smoothing before painting.	Special binder based light weight plaster for fire protection of steel parts.

Services



PRODUCT TECHNOLOGY AND LABORATORY SERVICES

Close collaboration with customer for:

- » Analysis and testing of raw materials
- » Development of recipes and supply of chemicals
- » Quality control systems



WIDE RANGE OF SERVICES

Lifetime partnership for Dry Mix production

- » Initial planning, project management, engineering, manufacturing and delivery
- » Supervision, commissioning, start-up and training
- » Spare parts and maintenance



PLANT MODERNIZATIONS AND CONTROL SYSTEM UPGRADES

Lahti Precision is solution partner for the whole life-cycle of a Dry Mix production, providing:

- » Extensions and capacity increase of plants
- » System modernizations





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Experience that weighs



LAHTI PRECISION OY

Ahjokatu 4 A, P.O.B. 22

FI-15801 Lahti, Finland

Tel. +358 3 829 21

Fax +358 3 829 4100

general@lahtiprecision.com

www.lahtiprecision.com