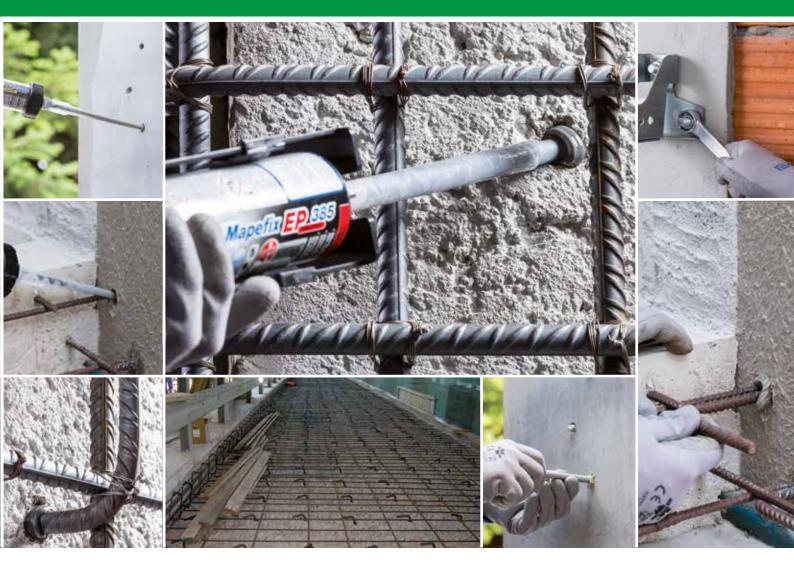
### SELECTION CHART OF PRODUCTS FOR CHEMICAL ANCHORS



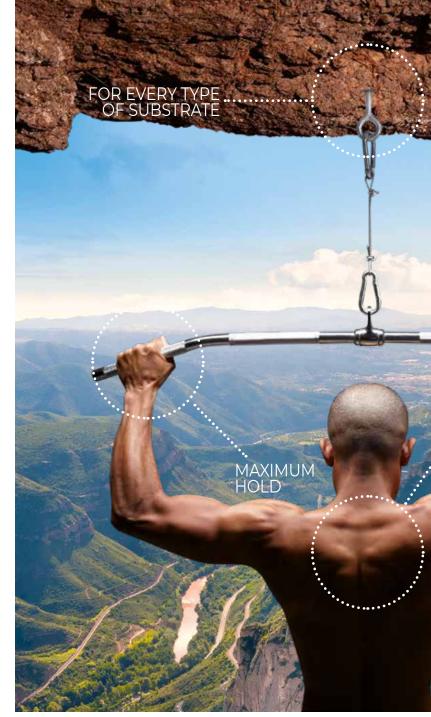




## MAPEI QUALITY CHEMICAL ANCHORS

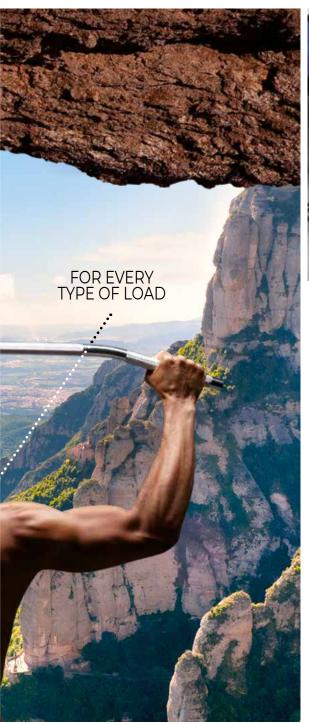
Mapei's experience in the building and construction field has been applied to the chemical anchors sector, with a range of products that are simple to choose and employ. They have such a high level of hold and reliability that they are a better option compared with mechanical fastening systems.

With the products on offer from the **Mapefix** range, Mapei highlights once again their vocation for producing only the highest quality products with total reliability in their results; safe, versatile, efficient solutions for all your anchoring needs during both the design phase and on site.











## **ADVANTAGES** THROUGHOUT THE ENTIRE RANGE

Mechanical fastening systems used in the building industry generally consist of a threaded component inside a cylindrical body with moving parts.

When the threaded part is turned it causes the moving parts in the cylindrical body to expand and, through the friction generated, prevent the fastener from slipping. Loads on the substrate, therefore, are localised and irregular.

Chemical anchors, on the other hand, allow for a more even distribution of loads along the whole surface of the wall of the hole, which means the pitch between each anchor, the depth of each hole and the distance of anchors from edges may all be reduce, highly beneficial in terms of improved performance and reliability over the years.

Also, since chemical anchors are compatible with every type of substrate and drilling method used, they simplify site logistics.







	Mapefix PE Wall	Mapefix PolyBond	Mapefix PE SF	Mapefix VinyBond
SUBSTRATES				
PERFORATION METHOD				
STATE OF THE HOLE				
THREADED BARS	Tomorrow Constitution of the second	Contraction of the contraction o	Constitution of the last of th	The state of the s
AVAILABLE CERTIFICATIONS	MASONRY	■ NON CRACKED CONCRETE	MASONRY NON CRACKED CONCRETE	NON CRACKED CONCRETE CRACKED CONCRETE SECOND POURS
DIAMETER OF CERTIFIED BARS	■ M8-M12	■ M8-M24	■ M8-M16 ■ M8-M24	■ M8-M30, Ø8-Ø32 ■ M8-M30, Ø8-Ø32 ■ Ø8-Ø32
HOLEPOSITION	COMPRESSED AREA	COMPRESSED AREA	COMPRESSED AREA	COMPRESSED AREA TENSE AREA
APPLICATION TEMPERATURE (MIN/MAX)	0/+30°C	<b>o</b> /+35°C	-5/+35°C	-10/+35°C
WAITING TIME (MIN./MAX)	<b>2</b> 0'/3 h	<b>20</b> '/3 h	20'/6 h	15'/7 h
SERVICE TEMPERATURE	-40/+50°C	-40/+80°C	<b>-</b> 40/+80°C	-40/+120°C
FIRE RESISTANCE				
LEED POINTS				0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

# THE IDEAL SOLUTION FOR ALL YOUR ANCHORING NEEDS

The **Mapefix** range offers all the best solutions for all your anchoring needs: from light loads right up to the most demanding structural requirements.

LIGHT LOADS FOR MASONRY



400 ml

#### **Mapefix PE Wall**

#### SOLVENT-FREE POLYESTER RESIN

Ideal for anchors in brickwork, stone masonry, mixed masonry, solid and perforated blocks



#### **Mapefix PolyBond**

#### POLYESTER RESIN

Ideal for anchors in non-cracked concrete even in damp holes



M8-M12





#### HEAVY LOADS FOR CONCRETE AND MASONRY



#### **Mapefix PE SF**

#### **SOLVENT-FREE POLYESTER RESIN**

Ideal for anchors in non-cracked mansory, also in wet holes

### European Technical Approval ETAG 029



M8-M24

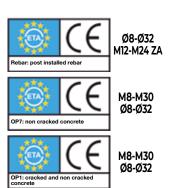
#### STRUCTURAL LOADS FOR CONCRETE AND MASONRY



#### **Mapefix VinyBond**

#### SOLVENT-FREE VINYLESTER RESIN

Ideal for anchors in cracked or non-cracked concrete second pours, also in wet holes



#### STRUCTURAL LOADS FOR ALL TYPES OF MATERIAL



#### **Mapefix VE SF**

#### SOLVENT-FREE VINYLESTER RESIN

ideal for anchors in cracked or non-cracked concrete second pours, seismic areas, also in wet holes

M8-M30

Ø8-Ø32







M8-M30 Ø8-Ø32

M8-M30

Ø8-Ø32

#### STRUCTURAL LOADS FOR ALL TYPES OF MATERIAL





#### **Mapefix UM-H**

#### URETHANE-METHACRYLATE HYBRID RESIN

ideal for anchors in cracked or non-cracked concrete second pours, seismic areas, (C1 and C2 class), also in wet holes, it adheres even with high temperatures



M12-M24

M8-M30

Ø8-Ø32



Ø8-Ø32 M6-M20 IG



M8-M30 Ø8-Ø32



M8-M30 Ø8-Ø32



#### STRUCTURAL LOADS FOR ALL TYPES OF MATERIAL



#### **Mapefix EP**

#### **SOLVENT-FREE EPOXY RESIN**

ideal for anchors in cracked or non-cracked concrete second pours, seismic areas, (C1 and C2 class), smooth or rough and in wet holes



M12-M16



M12-M30 Ø12-Ø32



M10-M24 Ø10-Ø25







M12-M30 Ø12-Ø32

Ø8-Ø40

M8-M30

Ø8-Ø32

#### STRUCTURAL LOADS FOR ALL TYPES OF MATERIAL





#### **Mapefix EP 470 Seismic**

#### **SOLVENT-FREE EPOXY RESIN**

ideal for anchors in cracked or non-cracked concrete second pours, seismic areas, (C1 and C2 class) also in wet holes







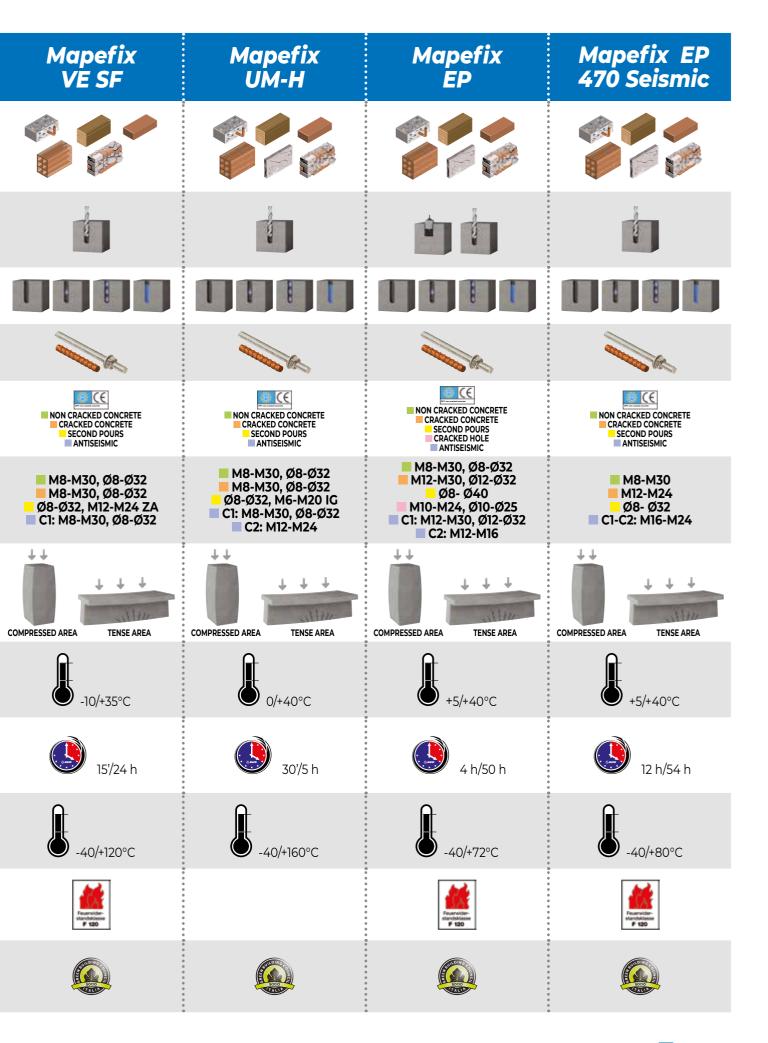
Ø8-Ø32



M8-M30



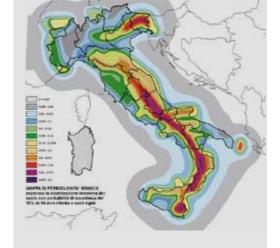






# PRODUCTS CERTIFIED ACCORDING TO EOTA FOR STATIC AND DYNAMIC LOADS

Apart from complying with the requirements of Eurocode standards, the Technical Reports issued by EOTA (Europoean Organisation of Technical Assessment), which have the most severe guidelines in the anchoring sector (ETAG 001, TR029, TR023 and ETAG 029), are testimony of the superior reliability of the **Mapefix** range of products. The parameters for chemical anchors used by EOTA take into consideration not only static loads, but also dynamic loads, particularly loads generated by seismic activity (ETAG 001 and TR 45).



#### MAPERIX OFFERS TOTAL ANTI-SEISMIC SECURITY

From 2008 Italy is a "seismic" area; since 2013 EOTA, through the specific Euronorm ETAG 001 - TR 45, has set a calculation protocol and test methods for the design of anchors in seismic areas. The products from the **Mapefix** range allow you to choose the most appropriate solution according to the seismic risk of a specific area, the characteristics of the building and the type of anchor and loads.

classification of buildings according to strategic Importance									
public		private							
		residential		commercial		industrial and manufacturing			
hospitals	cat. IV	private homes	cat. II	hotels	cat. III	power stations	cat. III to IV		
government buildings	cat. IV	apartment blocks	cat. II	shopping centres	cat. III	activities with a high impact on the environment	cat. III to IV		
emergency services	cat. IV	rural	cat. I	offices	cat. III	petrochemical	cat. III		
airports	cat. IV					activities with a low impact on the environment	cat. II		
schools	cat. III						cat. I		
infrastructures	cat. II to IV								

seismic certification for chemical anchors								
ground loads	intensity of seismic activity	non-structural anchors			structural anchors			
ground loads		cat. I buildings	cat.I and II buildings	cat. IV buildings	cat I buildings	cat II, III and IV buildings		
< 0.05 g	low		NO	NO	NO	NO		
0.05 to 0.1 g	medium	NO	CI	C2		C2		
> 0.1 g	high		C2					

C1 seismic classification: Mapefix VE SF, Mapefix UM-H, Mapefix EP, Mapefix EP 470 Seismic

C2 seismic classification: Mapefix UM-H, Mapefix EP, Mapefix EP 470 Seismic



#### SUPPORT AND TOOLS FOR DESIGNERS AND CONTRACTORS

Technicians and designers can now count on a tool that can be downloaded from our website www.mapei.com:

#### Mapefix Software Design.

A specific technical software package developed in compliance with current European standards to help calculate the correct dimensions of an anchor using resins form the **Mapefix** range. Furthermore, Mapei Technical Services Department provides a personalised technical consultancy service to assist designers and contractors and meet their specific anchoring needs.

#### ANCHORING **ACCESSORIES** FOR MORE PRACTICAL OPERATIONS

To help make anchoring operations even simpler, quicker and safer, Mapei has developed a series of specific accessory items: tools, instruments and complementary materials.

Their use helps optimise application procedures and prevents wasting products, even in the most demanding situations and site conditions.







## EVERYTHING'S OK, WITH MAPEL

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