

o r t h o p a e d i c s

CEMEX[®] LINE



*Reliability,
Innovation,
Safety,
Versatility...
in the hands of the surgeon.*

TECRES[®] 
Advancing High Technology

www.tecres.it



*Knowing that our products,
every day improve
the lives of many people.
This is our ambition.
This is our reward.*





TECRES[®]

Advancing High Technology

Specialized in acrylic resins, since 1981, we work closely with surgeons to develop innovative, safety and effective products.

Our goal is to improve the quality of life of patients: in this perspective and thanks to our constant research and development effort, combined with major technological advances in industrial processes, we were the first in this market to launch:

- 1986 - a bone cement with 3:1 ratio (powder/liquid)
- 1991 - an all-in-one system to mix and to release bone cement
- 1997 - preformed spacers, temporary prosthesis in PMMA for two-stage septic revision
- 2010 - bone cement with vancomycin and gentamicin.

Moreover, we now have both ISO 9001 and ISO 13485 certifications and ministerial authorizations to market our products in over 70 countries world-wide.

Tecres: Advancing High Technology.

CEMEX[®]

LINE

Reliability

Reliability

Innovation

Innovation

Safety

Safety

Versatility

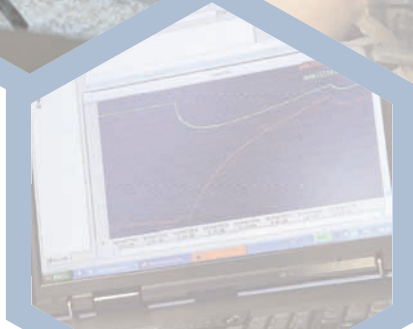
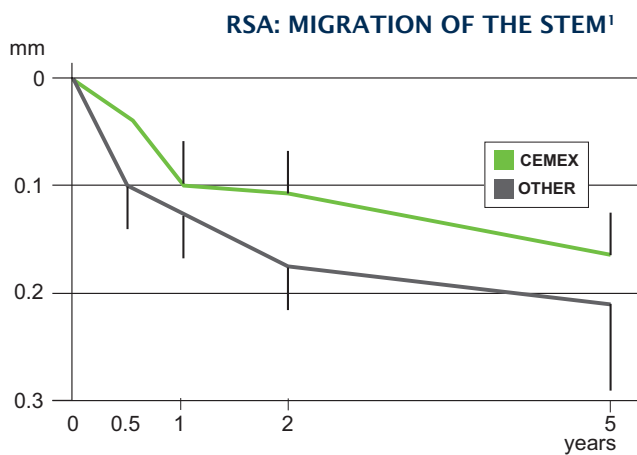
Versatility

Reliability 25 years of clinical use

Cemex is the bone cement designed by Tecres for joint implants. Right from the start, the company focused on research and development of acrylic resins, creating a unique and revolutionary product in 1986.

Since then, **the outstanding features of Cemex have remained unchanged** and they are now available in every product of the complete range, making it the ideal cement for all needs.

As shown by several international publications, **Cemex is a safe and reliable cement**¹⁻³, with **excellent mechanical performance**¹² and **long-term clinical follow-up**.^{1,9-11-13-14}



Innovation 30% less monomer

Bone cement is made up of polymers (powder) and a monomer (liquid); when the liquid component wets the surface of the powder it sets off a chemical reaction (known as polymerization).

An **exclusive process patented by Tecres** gives to the powder particles of Cemex a very smooth and uniform surface, making the cement very compact with extremely low porosity. The special powder of Cemex needs **30% less monomer** than conventional bone cements found on the market.

The **revolutionary 3:1 ratio** between powder and liquid puts Cemex in a different league from the traditional 2:1 ratio, providing the surgeon, the operating theatre staff and the patients with a number of **significant and proven advantages**

Greater safety (Graph A)

With less monomer than any other cements on the market, Cemex is the acrylic resin with the lowest toxicity for anyone coming into contact with it⁷.

Less heat given off (Graph B)

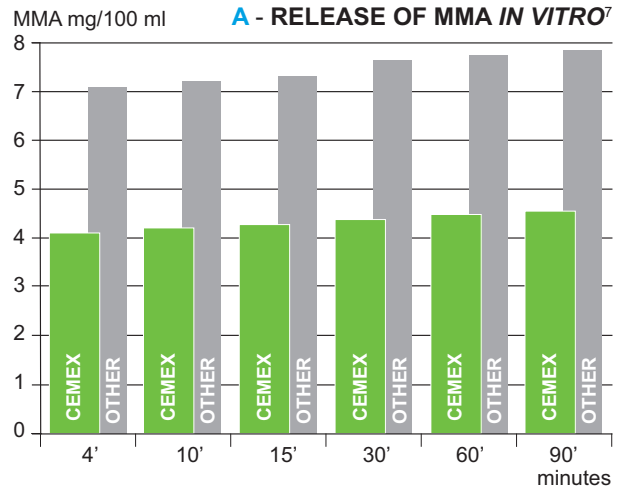
Every gram of monomer generates heat amounting to 130 Kcal. Cemex requires less liquid, so the maximum temperature reached at the end of the chemical reaction is substantially lower, thus preserving surrounding tissues^{8,12}.

Reduced shrinkage (Graph C)

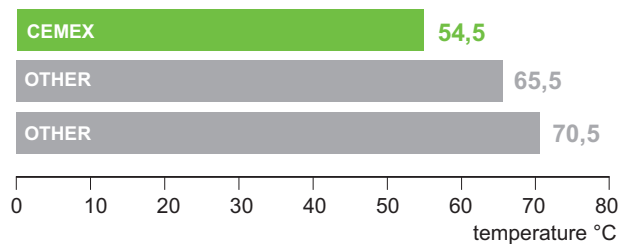
Shrinkage is the reduction in volume of the cement following its polymerization. It is directly proportional to the amount of liquid present. As the amount of monomer required is reduced by a third, shrinkage is also reduced, thus greatly improving implant fixation⁶.

Release of antibiotic (Graph D)

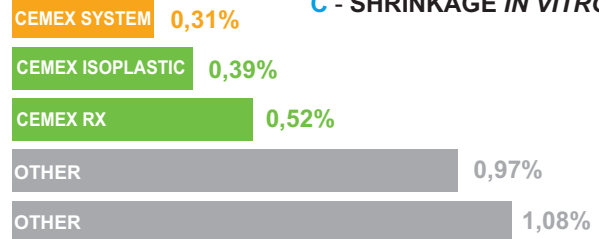
Some antibiotics are heat-labile, but as Cemex only reaches quite a low temperature during polymerization, this reduces the risk of antibiotic degradation, thus ensuring effective release of the antibiotic^{4,5}.



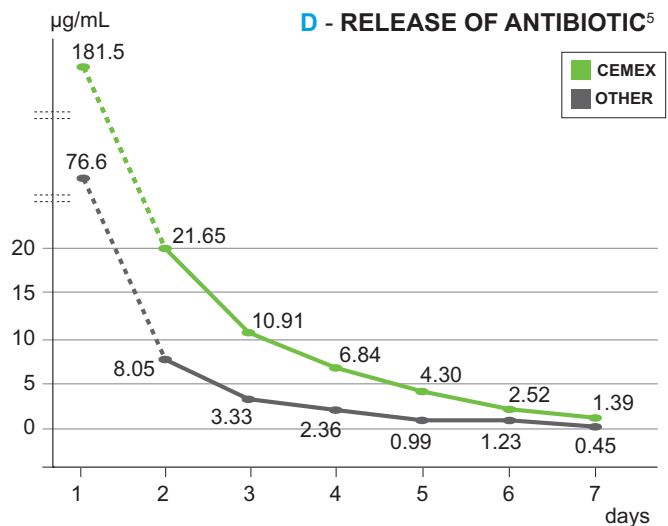
B - TEMPERATURE OF POLYMERIZATION IN VITRO¹²



C - SHRINKAGE IN VITRO⁶



D - RELEASE OF ANTIBIOTIC⁵



Safety: 0 monomer fumes

The Cemex product range has a unique cementation system that already has both powder and liquid inside it. **Cemex System** is an “all-in-one” system capable of providing safety and simplicity in a single device.

In just a few simple steps, the cement is ready to use and combines the excellent features of Cemex cement alongside a series of major advantages:

no risk of contamination

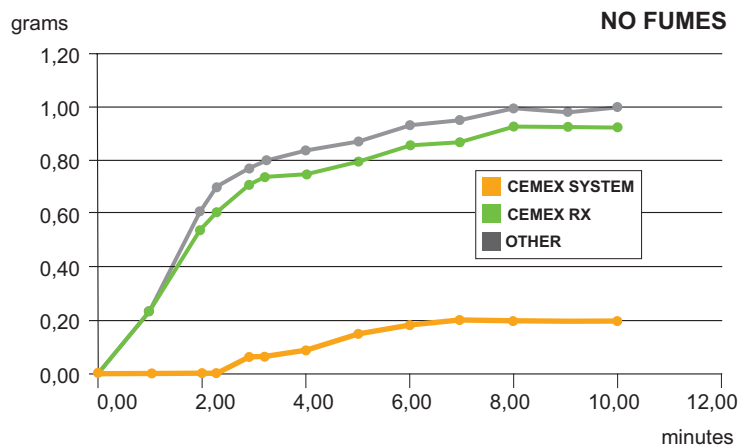
Cemex System is completely sealed. Operators do not come into contact with the material at any stage of the cementation process, nor do the components come into contact with the environment.

no vapours

The system is completely odour-free, thus protecting operators from being exposed to monomer fumes.

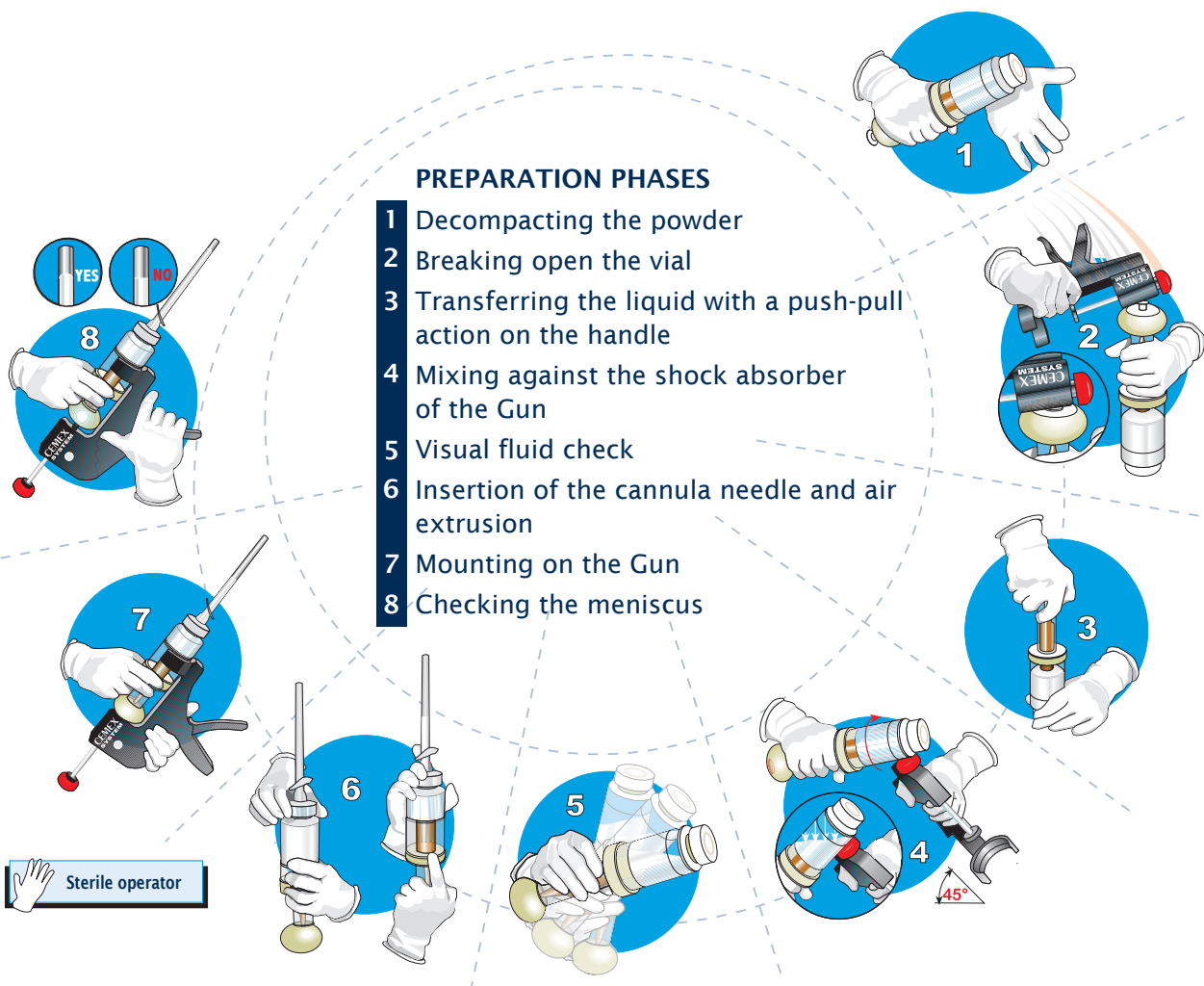
easy to use and store

Cemex System combines a bone-cement mixing system with a bone-cement delivery system. There are no bags to open up, nor tubes to connect together - all that is needed is the purpose-built Gun. Cement can be prepared in a very short time and this can be done by just one person. Its practicality and compactness mean more room on shelves and in the operating theatre.



PREPARATION PHASES

- 1 Decompacting the powder
- 2 Breaking open the vial
- 3 Transferring the liquid with a push-pull action on the handle
- 4 Mixing against the shock absorber of the Gun
- 5 Visual fluid check
- 6 Insertion of the cannula needle and air extrusion
- 7 Mounting on the Gun
- 8 Checking the meniscus



Versatility: 18 product variants

Cemex adapts to the surgeon's requirements, so it provides a **complete product range that is unrivalled on the market**, ensuring maximum flexibility for all surgical procedures.

Cemex Isoplastic: high viscosity, recommended for manual applications, particularly for cementing the acetabulum and the knee.

Cemex RX: medium viscosity, suitable for both syringe and manual applications (wait is a few minutes longer).

Cemex XL: low viscosity, suitable for syringe applications.

Cemex Fast: high viscosity, suitable for manual applications where fast application times are required. Also available with Gentamicin.

Cemex Genta: bone cement with Gentamicin, available in two versions: high and low viscosity.

Cemex System: bone cement, ideal in any surgical situation. Also available with Gentamicin.

Cemex System Fast: bone cement, ideal in any surgical situation, suitable where fast application times are required. Also available with Gentamicin.

For improved optical contrast, we developed the **ID green** range, which contains pre-coloured bone cement with Gentamicin.

The green colouring **helps to distinguish** the cement from the bone.

The colouring also remains stable over time, making any revisions easier even several years later.

Cemex Genta ID green: bone cement with Gentamicin, medium viscosity, suitable for both syringe and manual applications.

Cemex System Genta ID green: bone cement with Gentamicin, ideal in any surgical situation, suitable where fast application times are required.

Finally, the range of Tecres cements also includes the exclusive **VANCOGENX** line with Vancomycin and Gentamicin.

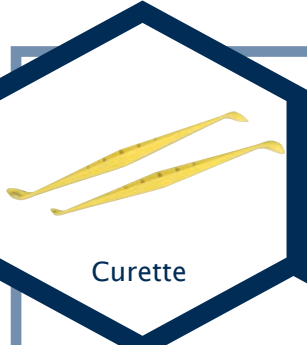


Accessories

CEMEX[®] LINE

The vast range of Cemex accessories includes everything that might be needed for an effective cementation procedure in any surgical situation.

Cementation KIT



Curette



Femoral
sponge



Pressurizer



Femoral
brush



Polyethylene femoral
restrictors
available in the following
sizes: 18 & 24

other accessories



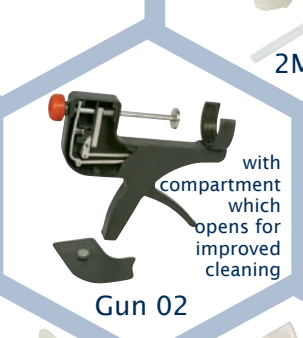
2Mix



CPSP-02
mixing bowl
and spatula

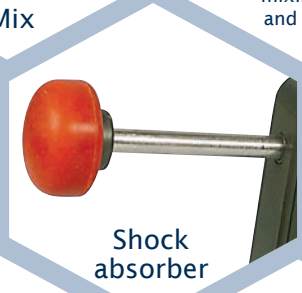


Gun 01



Gun 02

with
compartment
which
opens for
improved
cleaning



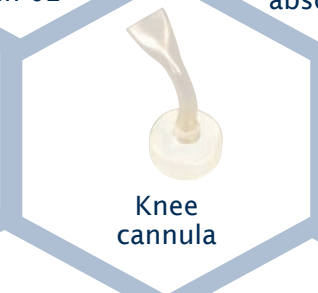
Shock
absorber



2Mix Gun



Acetabulum
cannula



Knee
cannula



Shoulder
cannula



Revision
cannula



Scissors for cannula
by request only

Cemex System Mixer is the first and currently the only **totally automatic** mixer for bone cement, and must be used exclusively with Cemex System. It can ensure:

reproducibility of results

Automation ensures **perfect mixing** for each and every procedure and eliminates any chance of human error.

easy to use

Simply wait a few seconds until the **cement is perfectly mixed** and ready for use, maintaining total sterility of the device.

optimised mixing

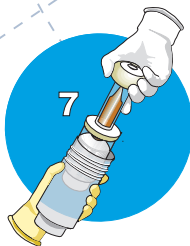
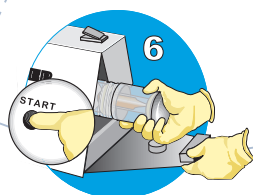
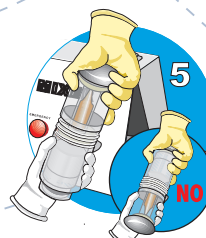
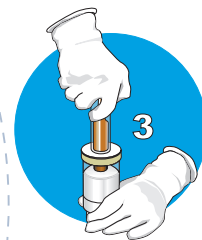
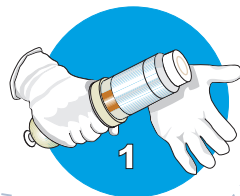
Eliminates any possibility of human error during the mixing process, **achieving excellent quality standards.**



Cemex System Container

PREPARATION PHASES

- 1 Decompacting the powder
- 2 Breaking open the vial
- 3 Transferring the liquid with a push-pull action on the handle
- 4 Inserting the device into the Cemex System Container
- 5 Passing the device to the non-sterile operator, without overturning it
- 6 Placing the device in the Cemex System Mixer and starting it up (95")
- 7 Opening the Cemex System Mixer and container. Passing the device to the sterile operator
- 8 Insertion of the cannula, air extrusion
- 9 Mounting on the Gun



 Sterile operator
  non-sterile operator

Ordering information

Code	Product	Details
1200/A	CEMEX-RX	40g
1200/I	CEMEX ISOPLASTIC	40g
1220/I	CEMEX ISOPLASTIC 1/2 sac	20g
1200/S	CEMEX XL	50g
12A3000	CEMEX FAST	20g+20g
12A3100	CEMEX GENTA FAST	20g+20g with Gentamicin
1400/AG	CEMEX GENTA LOW VISCOSITY (steril. Eto)	40g with Gentamicin
1400/IG	CEMEX GENTA HIGH VISCOSITY (steril. Eto)	40g with Gentamicin
1400/AG INT	CEMEX GENTA LOW VISCOSITY (steril. Gamma)	40g with Gentamicin
1400/IG INT	CEMEX GENTA HIGH VISCOSITY (steril. Gamma)	40g with Gentamicin
1310/S	CEMEX SYSTEM	60g
1500/S	CEMEX SYSTEM	80g
1510/S	CEMEX SYSTEM FAST	70g
13A2020	CEMEX SYSTEM FAST	40g
1310/SG	CEMEX SYSTEM GENTA	60g with Gentamicin
1500/SG	CEMEX SYSTEM GENTA	80g with Gentamicin
13A2110	CEMEX SYSTEM GENTA FAST	40g with Gentamicin
13A2100	CEMEX SYSTEM GENTA FAST	70g with Gentamicin
13A2420	CEMEX SYSTEM GENTA ID GREEN	70g with Gentamicin
12A2420	CEMEX GENTA ID GREEN	40g with Gentamicin
CPSP-02	BOWL AND SPATULA	
CNL-09	SHOULDER CANNULA	
ASA0010	KNEE CANNULA	
ASA0000	ACETABULUM CANNULA	
ASA0050	REVISION CANNULA	
ASA0150	HIP CANNULA	
KIT-01	CEMEX PREP KIT	
KIT-02	CEMEX PREP KIT 02	without restrictors
TPA-18	polyethylene FEMORAL RESTRICTORS	18 mm
TPA-24	polyethylene FEMORAL RESTRICTORS	24 mm
TMP-08	FEMORAL SPONGE	
PRZ-01	PRESSURIZER	
SPZ-01	FEMORAL BRUSH	
GUN-01	GUN 01	
ASA0130	GUN 02	with opening compartment
ASA0140	SHOCK ABSORBER	
ASA0020	CEMEX SYSTEM MIXER 220V	220 Volts
ASA0021	CEMEX SYSTEM MIXER 110V	110 Volts
ASA0030	CEMEX SYSTEM CONTAINER	sterile and disposable
ASA0031	CEMEX SYSTEM CONTAINER	non-sterile and reusable
ASA0210	SCISSORS FOR CANNULA	by request only
12A2520	VANCOGENX	40g with Vanco + Genta
ASA0320	2 MIX	
ASA0310	2MIX GUN	

PRODUCT SUMMARY TABLE

CEMEX®						VANCOGENX®	CEMEX® SYSTEM			
Isoplastic		RX	XL	FAST	ID green			CEMEX® SYSTEM	FAST	ID green
20g	1220/I					20g		40g	13A2110 13A2020	
20g + 20g				12A3000 12A3100		20g + 20g		60g	1310/S 1310/SG	
40g	1200/I 1400/IG 1400/IG INT.	1200/A 1400/AG 1400/AG INT.			12A2420	40g	12A2520	70g	1510/S 13A2100	13A2420
50g			1200/S			50g		80g	1500/S 1500/SG	

WITH GENTA

WITH VANCO + GENTA

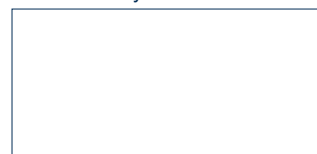
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