

OpaCem



PMMA Bone Cement

Thanks to our years of tremendous experience and continuous research, we had been able to develop the new upgraded PMMA Bone Cement OpaCem.

The OpaCem cement includes 60% of X-ray contrast agent Zirconium Dioxide which allows to visualize the cement under fluoroscopy more clearly and determine the exact placement of cement..



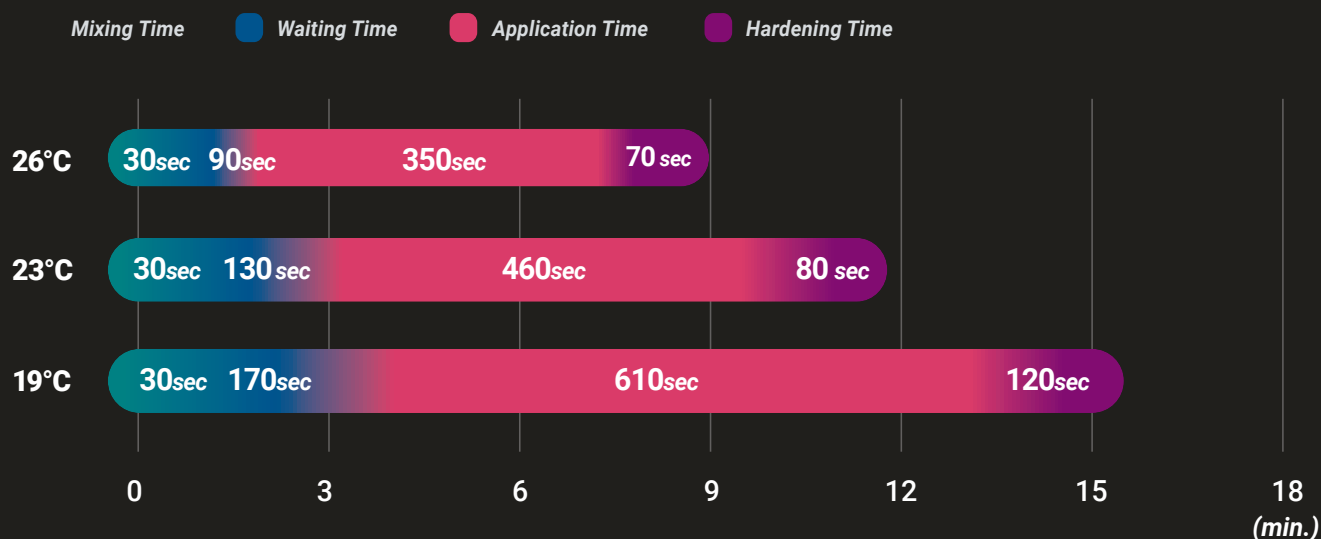
Indications

- Severely painful osteoporotic compression fractures
- Painful vertebral body tumors (metastasis or myeloma)
- Symptomatic vertebral hemangioma

Features

- High radiopaque cement with 60% of ZrO₂
- Optimized viscosity for Vertebroplasty and Kyphoplasty
- Short mixing and long working time
- Good mechanical properties

Chart of handling time at Various Temperature



Time shown in the chart was obtained by 2 hours storage at 20° before use condition.

Composition

Component	
Powder (20g)	
Chemical name	Amount
Poly-methylmethacrylate	7.70g
Zirconium dioxide	12.00g
Benzoyl Peroxide	0.30g

Component	
Liquid (8.5g)	
Chemical name	Amount
Methyl methacrylate (monomer)	8.436g
N.N-dimethyl para toluidine	0.064g
Hydroquinone	150ppm

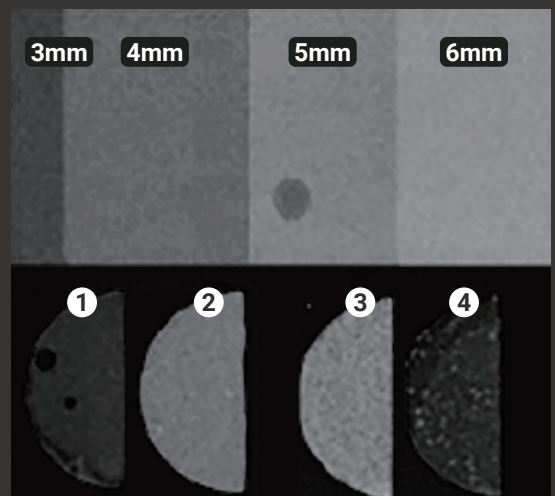
High radiopacity property

The following table shows the radiopacity property of OpaCem cement, NTCem Spine (old version), and two other brands.

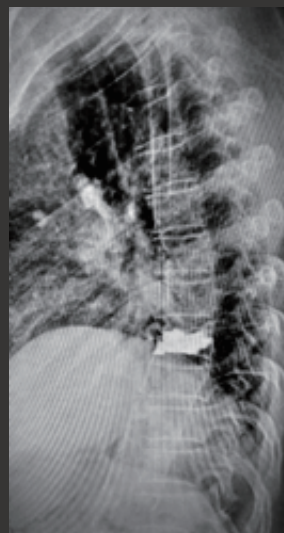
No	Product name	Contrast agent name and amount added	AI (mm)
1	NTCem Spine	ZrO2 30%	2.2
2	OpaCem	ZrO2 60%	4.6
3	"B" brand	ZrO2 60%	4.7
4	"S" brand	BaSO4 30%	2.4

Pic 1 shows the AI step-wedge by 3,4,5,6mm and below Pic shows the brightness of each product which can be compared to AI step-wedge

Pic.1 AI step-wedge



Pic.2 X-ray Image



Physical Properties

Evaluation item (ISO 5833)	Unit	OpaCem
Compressive Strength	MPa	90~100
Application Time	min	8~10
Setting Time	min	12~14
Exothermic Temperature	°C	60~80
Bending Strength	MPa	60~70
Bending Modulus	MPa	4,909
Intrusion	mm	≥2
Radiopacity	mm	4.6

Product Specification

Model Name	Order No	Components	Weight(g)
OpaCem	4210BG0002	Powder	20g
		Liquid	8.5g