Article	Art.-No.
BonOs® R NF	
BonOs® R NF 1 x 40	01-0137
BonOs® R NF 2 x 40	01-0138
BonOs® R NF Genta	
BonOs® R NF Genta 2 x 20	01-0235
BonOs® R NF Genta 1 x 40	01-0236
BonOs® R NF Genta 2 x 40	01-0237
BonOs® R NF Genta 1 x 60	01-0238

OSARTIS GmbH
Auf der Beune 101, 64839 Münster, Germany
Subsidiary: Lagerstraße 11-15, 64807 Dieburg, Germany
phone +49 (0) 6071 - 929 0 **e-mail** info@osartis.de
fax +49 (0) 6071 - 929 100 **web** www.osartis.de

141-2050-02EN / 072020

OSARTIS®

BonOs® R NF & BonOs® R NF Genta

PMMA Bone Cements for Artificial Joint Replacement

BonOs® R NF & BonOs® R NF Genta

BonOs® R NF is a fast-setting acrylic resin for use in bone surgery.
BonOs® R NF Genta contains the antibiotic gentamicin sulfate that protects the implant and the surrounding tissue from colonization with pathogens that are sensitive to gentamicin. BonOs® R NF and BonOs® R NF Genta cement powders contain insoluble zirconium dioxide as X-ray contrast medium.

Properties

- High viscosity bone cements for cemented joint arthroplasty
- Long working and fast setting time
- Ideal for vacuum and hand mixing
- Prechilling for additional working time possible
- Reliable prosthesis fixation and high fatigue strength
- Contains zirconium dioxide for X-ray contrast
- Controlled release of the antibiotic

Optimal Monitoring of Results

Zirconium dioxide is added to BonOs® R NF and BonOs® R NF Genta to guarantee optimal X-ray visualization. The surgeon can at any time assess the distribution of the cement in the bone and around the implant on the X-ray image and thus assure an optimal outcome of the procedure.

Composition

The composition of BonOs® R NF and BonOs® R NF Genta is based on Charnley's principle of using PMMA bone cements in artificial joint replacements, which was established as the gold standard 50 years ago. In accordance with Charnley's principles, OSARTIS bone cements contain only the necessary raw materials.

	BonOs® R NF	BonOs® R NF Genta	Refobacin® Bone Cement R
Powder			
Poly(methyl acrylate / methyl methacrylate)	84.1 %	82.48 %	82 %
Zirconium dioxide	15.0 %	14.70 %	15 %
Benzoyl peroxide	0.9 %	0.86 %	1 %
Gentamicin sulfate	–	1.96 %	2 %
Liquid			
Methyl methacrylate[1)]	98.47 %	98.47 %	98 %[2)]
N,N-dimethyl-p-toluidine	1.53 %	1.53 %	2 %

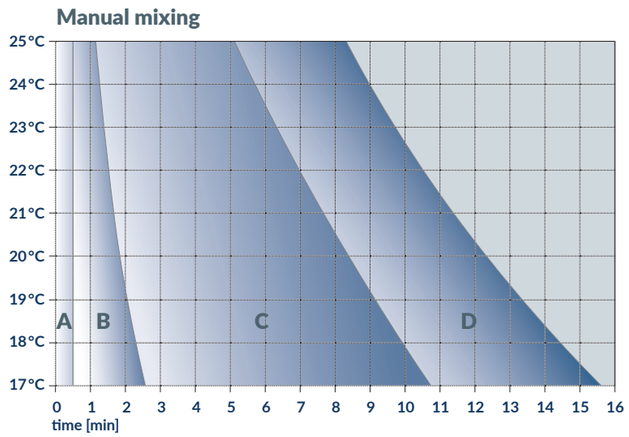
[1)] Stabilized with Hydroquinone
[2)] Contains chlorophyll VIII
Refobacin® Bone Cement R is neither a development nor a product of OSARTIS GmbH.
Refobacin® is a registered trademark owned by and licensed from Merck KGaA.

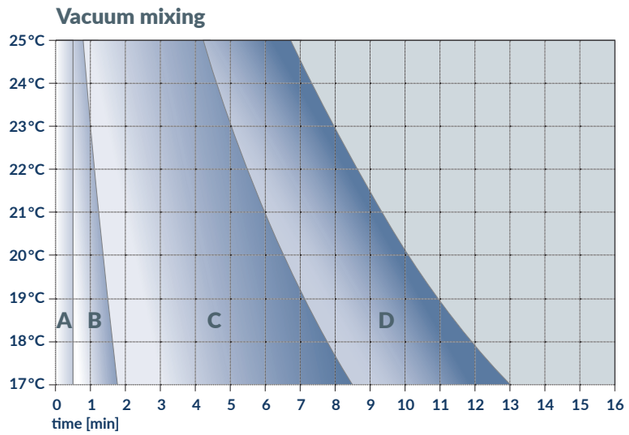
Sources:
- Biomet France, Instructions for use Refobacin® Bone Cement R: 9878300010_01, 2016-07-19
- **OSARTIS GmbH**, Instructions for Use BonOs® R NF, BonOs® R NF Genta

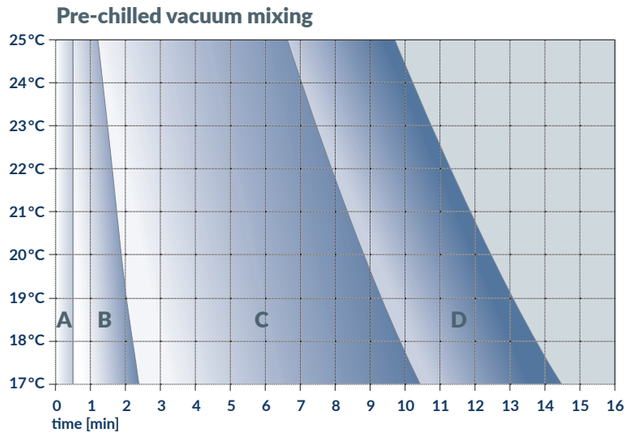
Well-established Processes in the Operating Room

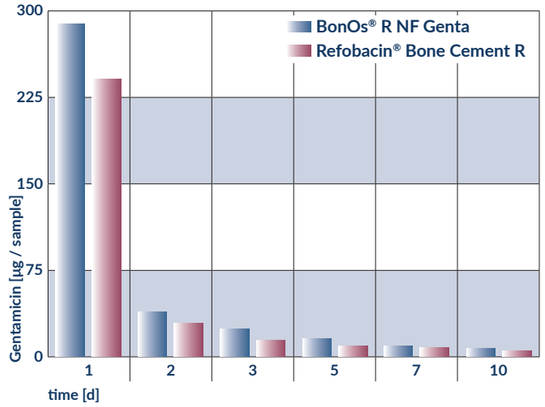
BonOs® R NF and BonOs® R NF Genta rely on established procedures in the operating room and on well-known and safe processes of mixing and application. After mixing, only a short waiting time is required before the highly viscous cement is no longer sticky. Application can start immediately after this short waiting period.

Depending on the user's needs, the cement can be mixed by hand or in a vacuum mixing system. Vacuum mixing can be done with pre-chilled bone cement.









A: Mixing Phase | **B:** Waiting Phase | **C:** Application Phase| **D:** Hardening Phase

At 21 °C the surgeon has a comfortable 6 minutes after mixing by hand or 4.5 minutes after using a vacuum mixing system to introduce the cement into the bone and position the implant. The application time can be prolonged by pre-chilling the cement.

Reliable Bone Fixation

The mechanical properties of BonOs® R NF and BonOs® R NF Genta guarantee reliable bone anchorage of the prosthesis.

Reproducible Release of the Antibiotic

BonOs® R NF Genta contains the established antibiotic gentamicin sulfate.

The local application of gentamicin is gentle on the patient.

BonOs® R NF Genta releases the established antibiotic gentamicin in a proven way, over a prolonged period and in effective, reproducible concentrations.