

Heraeus



PALACOS®

Excellence in modern
cementing technique



QUALITY. EXPERTISE. INNOVATION.

Modern cementing technique for arthroplasty.

For more than 50 years, PALACOS® bone cement has been the gold standard when it comes to permanent bone anchorage of implants. Combining existing know-how with market needs – this is the formula for success at Heraeus. Decades of research and development have resulted in Heraeus continually adding innovative products to its portfolio. Aside from selecting the appropriate bone cement, the application of modern cementing techniques is pivotal to the success of endoprosthetic procedures. To this end, Heraeus has a comprehensive portfolio ranging from high-quality PALACOS® bone cements through the innovative PALAMIX® vacuum mixing system to a pulse lavage system for cleaning the bone bed.

(1) Malchau, H. et al.: Prognosis of Total Hip Replacement. Dep. of Orthopaedics, Göteborg University, Sweden 2000.

(2) Engesaeter, L.B. et al.: Antibiotic prophylaxis in total hip arthroplasty, University of Bergen, Norway 2003

(3) Herberts, P. et al.: The Swedish National Hip Arthroplasty Register – Report 2004, Department of Orthopaedics Sahlgrenska University Hospital, Sweden 2004.

PALACOS® R+G

PALACOS® R

The Original. Made in Germany.

TRUST IN GREEN.

PALACOS® R is a high-viscosity bone cement. With raw materials of consistently high quality and a proven formula, PALACOS® cements have made a positive contribution towards successful surgical interventions for over 50 years. Characteristically green in colour, PALACOS® contrasts optically with the surrounding tissue and thus facilitates easier handling during surgery.

LOW REVISION RATES (1)

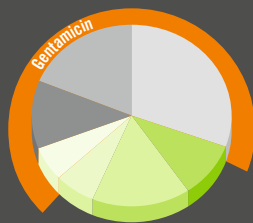
Clinical documentation reveals longer survival rates of implants that have been anchored with PALACOS® cement. Compared with other cements, far fewer revisions are necessary after 10 years for implants cemented with PALACOS®.

BENEFITS OF ANTIBIOTIC PROPHYLAXIS

All PALACOS® cements are also available with added gentamicin. The local release of the antibiotic minimises the risk of infection in the implant with reduced systemic load (2). Today, PALACOS® R+G is known for very low revision rates in cemented endoprostheses (3).



SPECTRUM OF ACTIVITY OF GENTAMICIN



- Pseudomonas s.p.
- Enterobacteriaceae
- Staphylococcus coag. negative
- Staphylococcus aureus
- Streptococcus sp
- Anaerobes
- Others

ADVANTAGES AT A GLANCE

- Gold standard in arthroplasty
- Reliable working properties from a proven formula
- Low risk of revision due to the addition of gentamicin
- Suitable for vacuum mixing



ONE PALACOS®. MANY GUISES.
Flexibility at the highest level.

The PALACOS® product portfolio from Heraeus comprises an extensive range of high-quality bone cements for anchoring endoprosthetic implants. Different viscosities, either with or without added antibiotic, ensure utmost flexibility for diverse applications.

PALACOS® MV+G

PALACOS® MV

Ideal for
vacuum mixing.

PALACOS® MV is a medium-viscosity bone cement. It contains the same raw materials as PALACOS® R and has very good mechanical properties. PALACOS® MV is especially suitable for use with vacuum mixing systems. This cement is also available with added gentamicin for antibiotic prophylaxis, under the name PALACOS® MV+G.



ADVANTAGES AT A GLANCE

- Suitable for large and medium-sized joints
- Ideal for vacuum mixing
- Antibiotic prophylaxis from added gentamicin
- Consistent quality from the same raw materials as in PALACOS® R

PALACOS® LV+G

PALACOS® LV

For tough tasks
with a deft touch.

PALACOS® LV is a low-viscosity bone cement. Thanks to its low viscosity, PALACOS® LV enables precise application even through thin nozzles, and so is ideal for small and medium-sized joints such as the shoulder and elbow. PALACOS® LV penetrates better into fine bone structures and provides good anchorage. This cement is also available with added gentamicin for antibiotic prophylaxis, under the name PALACOS® LV+G.



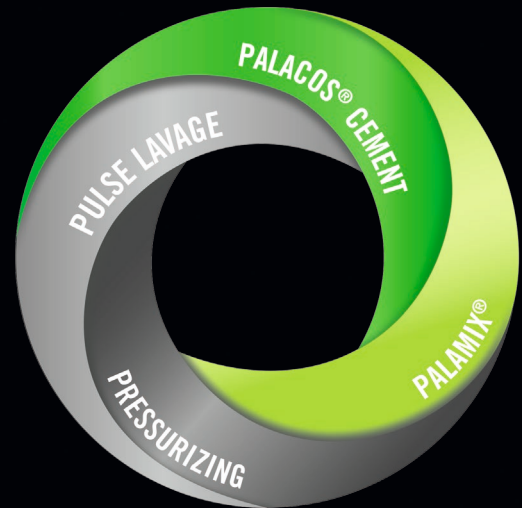
ADVANTAGES AT A GLANCE

- Suitable for small and medium-sized joints
- Precise application thanks to low viscosity
- Antibiotic prophylaxis from added gentamicin
- Consistent quality from the same raw materials as in PALACOS® R

COMBINATION. PERFECTION.

Synergistic effects from a coherent system.

In modern cementing techniques, the combination of different elements is crucial to the long-term surgical outcome. Today, „state-of-the-art“ not only refers to the choice of suitable bone cement with appropriate viscosity and composition, but also to vacuum mixing systems that produce homogeneous, standardised mixtures, bone bed cleaning with a pulse lavage system, and the application of pressure with a pressuriser.



PULSE LAVAGE

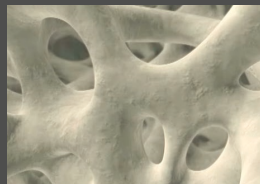
LONG SURVIVAL RATES DUE TO AN OPTIMUM BONE-CEMENT INTERFACE

In addition to vacuum mixing and pressurisation, bone bed cleaning with a pulse lavage system has evolved to become an important aspect of modern cementing techniques. The risk of revisions is much lower according to study data (4). The bone bed can be cleaned effectively with a pulse lavage system, leaving the surgical site ideally prepared for the application of cement.

CLEANING OF THE BONE BED WITH PULSE LAVAGE



before



after

PALAMIX®

VACUUM MIXING SYSTEM FOR BONE CEMENTS

The PALAMIX® vacuum mixing system is the secret to the outstanding workability of PALACOS® cements, producing a homogeneous cement mixture. The standardised mixing process produces consistent results, whilst the product design allows for optimal utilisation of the cement. PALAMIX® is easy to use, facilitating smooth surgical procedures.

ADVANTAGES AT A GLANCE

- Safe and easy handling
- Reproducible mixing results due to a standardised mixing concept
- Easy to incorporate into surgical procedures
- Selection of nozzles for different indications
- Diverse pressurisers for optimal cementing techniques

Two-in-one concept: a mixing rod that becomes an application nozzle



Standardised mixing under vacuum:
25–30 strokes, 1 stroke/second



- Separate sections for systematic introduction of cement components
- Ampoule opener on the funnel
- Monomer filter retains glass splinters from the ampoule

PALACOS®	Description	Content	REF
PALACOS® R+G	High-viscosity bone cement with gentamicin	2 x 10 2 x 20 1 x 40 2 x 40 1 x 60	66017776 66017773 66017771 66017569 66017772
PALACOS® R	High-viscosity bone cement	1 x 40 2 x 40	66017778 66017777
PALACOS® MV+G	Medium-viscosity bone cement with gentamicin	1 x 20 2 x 20 1 x 40 2 x 40 1 x 60	66031996 66031998 66031993 66031995 66032000
PALACOS® MV	Medium-viscosity bone cement	1 x 40 2 x 40	66031982 66031984
PALACOS® LV+G	Low-viscosity bone cement with gentamicin	1 x 20 1 x 40	66037894 66017787
PALACOS® LV	Low-viscosity bone cement	1 x 20 1 x 40	66037893 66017788

PALAMIX®	Description	Content	REF
PALAMIX® uno 1 x 40 PALAMIX® uno 1 x 80 PALAMIX® uno 1 x 120	Vacuum mixing system	10 10 10	66036742 66036743 66036744
PALAMIX® duo 2 x 40 PALAMIX® duo 2 x 80	Vacuum mixing system with 2 cartridges	10 10	66036745 66036746
PALAMIX® duo hip 1 x 40 / 1 x 80	Vacuum mixing system hip with 2 cartridges	10	66044411
Accessories	PALAMIX® cement gun PALAMIX® vacuum pump PALAMIX® nozzle medium PALAMIX® nozzle slim	1 1 10 10	66036163 66036748 66043960 66036747

PALAVAGE®	Description	Content	REF
PALAVAGE® Pulse Lavage PALAVAGE® Pulse Lavage	Handpiece with AO/Synthes Connector Handpiece with Zimmer/Hall Connector	1 1	66022825 66022827
PALAVAGE® Set Hüfte/Knie PALAVAGE® Set Hüfte/Knie	Attachment with suction unit Attachment without suction unit	10 10	66022828 66022830

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