LISMEDFARM S.R.L.
Șos. Munceşti, 167/B, MD – 2002, mun. Chișinău, Republica Moldova
tel.: 022-80-47-98, 022-55-64-38, 022-56-94-91, e-mail: oficiu@lismedfarm.md,
web: https://lismedfarm.md, c/f: 1003600113573, TVA: 0304618, director – Ecaterina Chitic

Anexa nr. 2
la Regulamentul cu privire la achiziţiile
publice de valoare mică

DECLARAŢIE DE ELIGIBILITATE

Către CENTRUL PENTRU ACHIZITII PUBLICE CENTRALIZATE IN SANATATE, MD-2005, MOLDOVA, mun.Chişinău, mun.Chişinău, mun. Chișinău MD-2005, bd. Grigore Vieru, 22/2

Stimaţi domni,

Subsemnatul, reprezentant împuternicit al Lismedfarm SRL, în calitate de ofertant, declar pe propria răspundere, sub sancţiunea excluderii din procedură şi sub sancţiunile aplicate faptei de fals în acte publice, că nu mă aflu în una dintre situaţiile prevăzute la art. 19 din Legea nr. 131/2015 privind achiziţiile publice.

Mă oblig, la solicitarea autorității/entității contractante, în scopul verificării şi confirmării declaraţiei, să prezint orice document doveditor de care dispun.

Data completării 04.09.2025

Cu stimă,

Ofertant/candidat

Vlad Chitic, director executiv

Lismedfarm S.R.L.

Digitally signed by Chitic Vlad
Date: 2025.09.05 00:51:52 EEST
Reason: MoldSign Signature
Location: Moldova
MOLDOVA EUROPEANĂ

LISMEDFARM S.R.L.
Șos. Munceşti, 167/B, MD – 2002, mun. Chișinău, Republica Moldova
tel.: 022-80-47-98, 022-55-64-38, 022-56-94-91, e-mail: oficiu@lismedfarm.md,
web: https://lismedfarm.md, c/f: 1003600113573, TVA: 0304618, director – Ecaterina Chitic

Anexa nr. 8
la Documentația standard
Ordinul Ministrului Finanțelor
nr. 115 din 15 septembrie 2021

DECLARAŢIE PRIVIND VALABILITATEA OFERTEI

Către CENTRUL PENTRU ACHIZITII PUBLICE CENTRALIZATE IN SANATATE, MD-2005, MOLDOVA, mun.Chişinău, mun.Chişinău, mun. Chișinău MD-2005, bd. Grigore Vieru, 22/2

Stimaţi domni,

Ne angajăm să menținem oferta valabilă, **privind achiziționarea** În scopul atribuirii contractelor subsecvente ca urmare a acordului-cadru (nr. ocds...30646 din 14.01.2025) încheiat prin procedura de achiziție publică ocds-b3wdp1-MD-1718205130646 din 12.06.2024 privind încheierea acordului-cadru - Achiziționarea endoprotezelor pentru anii 2025-2027 (se indică obiectul achiziției) **prin procedura de achiziție** Licitație deschisă (tipul procedurii de achiziție)**,** pentru o durată de 30 (treizeci) zile, (durata în litere și cifre), respectiv până la data de 31/12/2025 (ziua/luna/anul), și ea va rămâne obligatorie pentru noi și poate fi acceptată oricând înainte de expirarea perioadei de valabilitate.

Data completării 04.09.2025

Cu stimă,

Ofertant/candidat

Vlad Chitic, director executiv

Lismedfarm S.R.L.

ORDIN DE PLATA **Nr.** 147 DATA EMITERII 05 septembrie 2025 TIP DOC : 1

PLATITI: 9500-00 LEI noua mii cinci sute lei .00 bani

PLATITOR (R) "LISMEDFARM" SRL CODUL IBAN: MD73EX0000000222401475MD

COD FISCAL: 1003600113573

PRESTATORUL PLATITOR: B.C. "EXIMBANK" S.A. SUCURSALA NR.20 CHISINAU

BENEFICIAR (R) MF-TT CHISINAU-BUGETUL DE STAT CENTRUL PENTRU ACHIZITII CENTRALIZATE IN SANATATE CODUL IBAN: MD23TRPCCC518430B01859AA

COD FISCAL: 1016601000212

PRESTATORUL BENEFICIAR: MINISTERUL FINANTELOR - TREZORERIA DE STAT

DESTINATIA PLATII

/P102/9500,00 Plata pentru Garantia pentru oferta la LP nr. ocds-b3wdp1-MD-1755067426849 din 05.09.2025

TIPUL TRANSFERULUI NORMAL/URGENT

N

L.S.

COD TRANZACTIE: 101

DATA PRIMIRII: 05 septembrie 2025

DATA EXECUTARII: 05 septembrie 2025 00:49:32

SEMNATURA BANCII: 461F7182090C2D8511B2AF3CEC0F6F69

SEMNATURA BANCII

SEMNATURILE EMITENTULUI

ECATERINA CHITIC
qFypEBXGV3N7LvBg7Ai3bo2mSZvh8cQqBiAEjbo=
ECATERINA CHITIC
qFypEBXGV3N7LvBg7Ai3bo2mSZvh8cQqBiAEjbo=

Inițiat în sistemul Eximbank Online și autorizat cu Semnătura Digitală

MOTIVUL REFUZULUI:

Specificații de preț

[Acest tabel va fi completat de către ofertant în coloanele 5,6,7,8, iar de către autoritatea contractantă – în coloanele 1,2,3,4,9]

Numărul licitației:	LP nr. ocds-b3wdp1-MD-1755067426849 din 05.09.2025	Data: „04” 09 2025	Alternativa nr.: _____
Denumirea licitației:	În scopul atribuirii contractelor subsecvente ca urmare a acordului-cadru (nr. ocds...30646 din 14.01.2025) încheiat prin procedura de achiziție publică ocds-b3wdp1-MD-1718205130646 din 12.06.2024 privind încheierea acordului-cadru - Achiziționarea endoprotezelor pentru anii 2025-2027	Lot: _____	Pagina: __din __

Cod CPV	Nr. Lot	Denumire Lot	Denumirea poziției	Unitatea de măsură	cantitatea	Preț unitar (fără TVA)	Preț unitar (cu TVA)	Suma fără TVA	Suma cu TVA	Termenul de livrare/prestare
1	2			3	4	5	6	7	8	9
33100000-1	9	Ciment ortopedic cu antibiotic	Ciment ortopedic cu antibiotic	bucată	1125	412.70	445.716	464287.5	501430.50	DDP - Franco destinație vămuit, Incoterms 2020, în termen de până la 30 de zile de la comanda scrisă a beneficiarului
						Suma total:		**464,287.5000**	**501,430.5000**	

Semnat:_____ Numele, Prenumele: Chitic Vlad În calitate de: Director executiv

Ofertantul: Lismedfarm S.R.L. Adresa: 167/B, sos. Muncesti, MD-2002 Chisinau

		Specificații tehnice							
			[Acest tabel va fi completat de către ofertant în coloanele 3, 4, 5, 7, iar de către autoritatea contractantă – în coloanele 1, 2, 6, 8]						
		Numărul licitației:	LP nr.						
		Denumirea licitației:	În scopul atribuirii contractelor subsecvente ca urmare a acordului-cadru						
Cod CPV	**Nr. Lot**	**Denumire Lot**	**Denumirea poziției**	**Modelul articolului**	**Țara de origine**	**Produ-cătorul**	**Specificarea tehnică deplină solicitată de către autoritatea contractantă**	**Specificarea tehnică deplină propusă de către ofertant**	**Standarde de referință**
1	**2**			**3**		**5**	**6**		**8**
33100000-1	9	Ciment ortopedic cu antibiotic	Ciment ortopedic cu antibiotic	OGM1A REF: 1711/SG	Turcia	Ormed Grup Medikal Tur. Sağ. Hiz. San. Ve Tic.Ltd.Şti.	Disponibil în pachete ce conțin minim 40 grame de pudră ce va conține polimer și monomer sub formă lichidă. - Să prezinte viscozitate medie, indicat pentru artroplastii de șold și genunchi si alte articulații. - Să contină oxidul de zirconiu sau sulfatul de bariu în pudra de ciment ca agent radioopac. -Să conțină Gentamicină. - Să prezinte o toxicitate redusă și să posede proprietăți hipoalergene. - să corespundă standardului ISO 5833. - Termen restant al sterilizării nu mai mic de 2 ani la momentul livrării.	Disponibil în pachete ce conțin 40 grame de pudră. **-conform catalogului pentru modelul OGM1A codul 1711/SG pag.5** -Pudra conține polimer și monomer sub formă lichidă. -Prezintâ viscozitate medie, indicat pentru artroplastii de șold și genunchi si alte articulații. -Contine oxidul de zirconiu sau sulfatul de bariu în pudra de ciment ca agent radioopac. -Conține Gentamicină. -Prezintă o toxicitate redusă și posedă proprietăți hipoalergene. -Corespunde standardului ISO 5833. -Termen restant al sterilizării nu mai mic de 2 ani la momentul livrării. **-conform descrierea produsului pentru modelul OGM1A codul 1711/SG**	CE DM000322462

Semnat:_____ Numele, Prenumele: Chitic Vlad În calitate de: Director executiv

Ofertantul: Lismedfarm S.R.L. Adresa: 167/B, sos. Muncesti, MD-2002 Chisinau

LISMEDFARM S.R.L.
Șos. Munceşti, 167/B, MD – 2002, mun. Chișinău, Republica Moldova
tel.: 022-80-47-98, 022-55-64-38, 022-56-94-91, e-mail: oficiu@lismedfarm.md,
web: https://lismedfarm.md, c/f: 1003600113573, TVA: 0304618, director – Ecaterina Chitic

PROCURĂ nr. 18 din 03.11.2023

Subsemnata, Chitic Ecaterina, în calitate de fondator unic şi administrator al S.R.L. „Lismedfarm", IDNO **1003600113573**, cu sediul în Republica Moldova, mun. Chișinău, șos. Munceşti, 167/B, MD-2002, împuternicească pe d-nul **Chitic Vlad**, directorul executiv al companiei S.R.L. „Lismedfarm", cetățeanul al Republicii Moldova, având IDNP **2007042030196**, posesor al buletinului de identitate seria **B** nr. **01232897** eliberat la data de **23.10.2023**, pentru a reprezenta interesele companiei S.R.L. „Lismedfarm". în faţa tuturor persoanelor competente, inclusiv in fata instanţelor de judecată, organelor de stat / autorităţilor publice (de toate nivelurile), instituţii (asociaţii, uniuni, etc.) publice, bancare, instituţii obştești, şi/sau profesionale, persoanele fizice şi/sau juridice în orice procedură judiciară, civilă, penală, administrativă sau contravenţionala.

D-ul Chitic Vlad se autorizează pentru orice act de administrare şi dispoziţie pentru buna desfăşurare a activităţii S.R.L. „Lismedfarm".

Pentru utilizarea scopului menționat, mandatarului i se oferă:

- dreptul de a îndeplini din numele companiei toate actele procedurale inclusiv va prezenta la orice bancă şi va putea efectua orice operaţiuni financiar-bancare pe conturile deschise pe numele S.R.L .„Lismedfarm", necesare desfăşurării activităţii societăţii, inclusiv deschideri, derijerii şi lichidări conturilor, va perfecta şi va inainta cereri şi declaraţi necesare, va prezenta documentaţia solicitată, va efectua plăţi, încasări, viramente, depuneri etc. din şi în aceste conturi, va achita orice taxe, va ridica extrasele de cont, îndeplinind toate formalităţile necesare, cu dreptul de a semna din numele companiei, în limita prezentului mandat;
- este împuternicit cu toate drepturile procesual penale și procesual civile, inclusiv de a achita taxa de stat și a înainta cererea prealabilă/somația; a semna și depune acțiunea, cererea introductiva, cererea de admitere a creanței, cerere de validare a popririi, referința, cererea de apel, cererea de recurs, cererea de revizuire; a recurge la arbitraj; a renunța total/parțial la pretențiile din acțiune; a majora/reduce cuantumul pretențiilor din acțiune; a prezenta probe; a modifica temeiul sau obiectul acțiunii; a recunoaște acțiunea; a recurge și participa la mediere, a negocia și semna tranzacții de împăcare; a intenta acțiunea reconvențională; a transmite împuternicirile unei alte persoane; a ataca hotărîrea judecătorească cu apel, recurs sau revizuire și a-i schimba modul de executare; a reclama probe; a da explicații și a pleda în dezbaterile judiciare; a strămuta pricina;; a depune cereri și plîngeri în adresa organelor abilitate, inclusiv privind intentarea cauzei penale; a solicita si primi informatii/acte de la organele de stat și persoane; a depune cereri de intervenție în proces;
- dreptul de a duce tratativele şi de a încheia contracte cu persoane fizice sau juridice, în vederea desfăşurării activităţii societăţii şi a unei bune administrări a acesteia, fiind nelimitat de suma tranzacției, va putea achiziționa în numele societăţii documentația de evidența contabilă-financiară de strictă evidență (chitanţiere şi facturi fiscale şi alte) și alte acte cu sau fără regim special, de a depune toate raporturile financiare /bilanţurile şi de a supraveghea şi verifica evidenţa contabilă a societăţii, cu dreptul de a perfecta, semna și inainta orice contestaţii şi plângeri la actele organelor financiare, fiscale sau a altor organe de control, cu dreptul de a semna procese verbale de constatare, declaraţii fiscale, declaraţii unice, facturi fiscale va obţine semnături electronice în numele societăţii, fiind direct răspunzător pentru acţiunile sale proprie;
- de a duce tratativele, încheia şi semna în numele societăţii şi pentru aceasta contracte de prestări servicii, de vinzarea mărfii, contracte de închiriere/comodat, contracte individuale de

- muncă, stabilind condiţiile acestor contracte, va efectua operaţiunile ce se impun cu casa(ele) de marcat, va putea semna contracte de asociere, colaborare, participaţiune, contracte comerciale, cu privire la activitatea societăţii. Va efectua operaţiuni comerciale, va achiziţiona şi distribui marfă, se va ocupa de derularea corespunzătoare a contractelor comerciale/muncă, va angaja/ concedia /disponibiliza personal, va efectua aprovizionarea societăţii, va achiziţiona marfă şi va ocupa inclusiv de buna administrare şi funcţionare a punctului/punctelor de lucru ale societăţii (dacă este cazul);
- dreptul de a îndeplini din numele companiei toate actele procedurale în faţa instanţelor de judecată în orice acţiuni judiciare, având toate drepturile părţii în proces, cu dreptul de a semna şi a depune în judecată cereri de chemare în judecată, cereri de eliberare a ordonanţelor judecătoreşti şi alte acte procesuale necesare, de a strămuta pricina în altă judecată, de a renunţa total sau parţial la pretenţiile din acţiune, de a majora sau reduce cuantumul acestor pretenţii, de a modifica temeiul sau obiectul acţiunii, de a încheia tranzacţii, inclusiv tranzacţii de împăcare, de a intenta acţiune reconvenţională, de a ataca hotărârea judecătorească cu apel şi/sau recurs sau revizuire, de a cere şi de a primi hotărârile, încheierile şi ordonanţele instanţei de judecată şi documentele executorii.
- de a înregistra din numele companiei cereri și demersuri la Agenția Serviciilor Publice (inclusiv la toate Departamentele structurale - Departamentul Cadastru, Departamentul înregistrare și licențiere a unităților de drept, Departamentul înmatriculare a mijloacelor de transport și calificare a conducătorilor auto, Departamentul înregistrare și evidență a populației și alte), și la alte instituții de înregistrare a bunurilor sau a drepturilor, de a semna cereri, contracte și alte acte necesare, de a susține în aceste organe drepturile șu interesele companiei, de a depune, de a solicita, de a primi actele necesare pentru realizarea scopului menționat;
- de a efectua toate actele legate de procedura de executare, inclusiv de prezentare sau retragere a documentului executoriu, de încheiere a tranzacției, de contestare a actelor executorului judecătoresc, de schimbare a modului de executare, de amânare sau eşalonare a executării, de depunere a cererilor, va semna şi va îndeplini toate acţiunile şi formalităţile, necesare pentru atingerea scopului executării silite;
- de a efectua toate acțiunile legate de procedura de insolvabilitate, să participe la toate adunările creditorilor și ședințele comitetului creditorilor si să voteze cu toate voturile pe toate chestiunile de pe ordinea de zi, inclusiv cu drept de vot asupra planului de restructurare, de a fi desemnat în calitate de membru al comitetului creditorilor precum și reprezentant al debitorului;
- are dreptul de a efectua toate acte legate de procedura de executare, inclusiv de primire, prezentare sau de retragere a documentului executoriu, de transmitere a împuternicirilor către o alta persoana (substituire), de încheiere a tranzacției, a reprezenta societatea în procedura de executare cu dreptul de a contesta actele executorului judecătoresc, a semna și depune cerere de calculare și încasare a a dobînzilor, a participa la acțiunile de executare de schimbare a modului de executare, de amanare sau de eșalonare a executarii;
- de a autentifica din numele companiei corespunderea copiei documentului originalului;

Procura este valabilă în decurs de 3 (trei) ani calendaristice de la data eliberării.

Specimenul semnăturii

Administratorul S.R.L. „Lismedfarm” Ecaterina Chitic.

REVISION FOLLOWING PAGE

Revision Date	Revision No	Revision Explanation
07.03.2018	0	First Publishing
04.12.2018	1	Test reports were added.
14.09.2020	2	Informations which are related with Sales amounts, Position in Market and Shelf life were uptaded. Certificate No was added
18.08.2021	3	Sales amounts, purpose of product were uptaded
10.08.2022	4	Sales amounts of 2022 was attached.

PREPARED	APPROVED
	

MANUFACTURER NAME AND ITS ADRESS, THE ADRESS OF MANUFACTORY FIELD AND DESIGNING PLACE

MANUFACTURER:

Ormed Grup Medikal Tur. Sağ. Hiz. San. Ve Tic. Ltd. Şti.

THE ADRESS OF MANUFACTURER:

Macun Mahallesi 177.Cadde No:19 H/7 Yenimahalle/ANKARA

DESIGN, PRODUCTION AND CONTROL:

Macun Mahallesi 177.Cadde No:19 H/7 Yenimahalle/ANKARA

PACKING AND STORING

Macun Mahallesi 177.Cadde No:19 H/7 Yenimahalle/ANKARA

BOTTLE STERILIZATION (ASEPTIC FILLING)

Macun Mahallesi 177.Cadde No:19 H/7 Yenimahalle/ANKARA

PROCESS OF OUR SOURCES- THE LEGAL ENTITY AND ADRESS OF EO STERILIZATION:

AYA Validasyon Ambalaj Sterilizasyon A.Ş.

Fatih Mahallesi 3105 Cad. No:8 Kazan / ANKARA – TÜRKİYE

1) PRODUCT LIST AND GMDN EXPLANATIONS

PRODUCT NAME OGM Bone Cement With Antibiotic

BRANDS OGM

No	Product Name	Ref No	UBB	GMDN
1	OGM1A 20 Standard Viscosity Bone Cement – With Gentamisin	1506/SG	8682024000031	35217
2	OGM3A 20 Low Viscosity Bone Cement – With Gentamisin	1503/LG	8682024000048	35217
3	OGM1A 40 Standard Viscosity Bone Cement – With Gentamisin	1711/SG	8682024000079	35217
4	OGM3A 40 Low Viscosity Bone Cement – With Gentamisin	1810/LG	8682024000086	35217
5	OGM1A 60 Standard Viscosity Bone Cement – With Gentamisin	1071/SG	8682024000116	35217
6	OGM3A 60 Low Viscosity Bone Cement – With Gentamisin	1453/LG	86820240000123	35217

After sales of our products, any negative situation has occured such as; withdrawal of our products, reporting to authority. CE sertificate number: 21 95-M ED -1921 201

2) THE PURPOSE OF PRODUCTS AND THEIR INDICATION:

OGM bone cement with gentamicin is a bone cement which is used in orthopedic surgeries, based on polymethyl methacrylate radiopaque. After the mixing of powder and liquid components, a exothermic polymerization occured then the product become ready to use. It is aimed that the mix which is polymerized before the use should increase catching rate of implants to bone.

Surgical radiqopaque bone cement is indicated placing of prosthesis to living bone in orthopedic muscolosketal surgical procedures for severe joint fragmentation as a result of osteoarthritis, rheumatoid arthritis, traumatic arthritis, avascular necrosis, sickle cell anemia, collagen disease, trauma or other conditions and revision of past arthroplasty procedures

Cement is also indicated for fixing pathological fractures where loss of bone material or recalcitrance of the fracture renders more traditional procedures ineffective. Together with

adjecting antibiotic to bone cement, local oscillation is gained and it is recoverer in prosthesis surgeries which contains infection.The features of gentamicin which in bone cement with antibiotic;

(i) wide antibacterial spectrum,
(ii) (ii) well bactericidal effect in low concentration,
(iii) (iii) low resistence occurence,
(iv) (iv) low rate of bonding in proteins,
(v) (v) low allergic potential,
(vi) (vi) kemik çimentosu mekaniğine etkisiz olması ya da etkisinin önemsiz –being low effectiveness to bone cement or ineffectivenes,
(vii) vii being resistent to thermal or chemical factors,
(viii) (viii) solubility in water,
(ix) (ix)Good oscillation in bone cement

3) PRODUCT FAMILY/CONTENT DEVICE SIZE AND CONTENT INFORMATION

Standard Viscosity With Gentamicin

Name of the product	Reference No	Barcode
OGM1A 20 Standard Viscosity Bone Cement With Gentamisin (1x20 g)	1506/SG	8682024000031
Powder Component Content	**Amount**	**raw material**
Polymethyl methacrylate	17,80 g	
Benzoyl Peroxide	0,2 g	
Barium Sulphate	2 g	Barium Sulfate
Gentamicin Sulfate	0,5 g	Gentamicin Sulfate Ph.Eur.9.0
Total Powder Amount	**20,5 g ± 1 g**	
Liquid Component Content	**Amount**	**raw material**
Methyl Methacrylate	9,8 ml	
N,N dimethyl p-toluidene	0,2 ml	
Hydroquinone	Trace amount (50 ppm)	
Total amount of liquid	**10 ml ± 0,5 ml**	

Name of the product	Reference No	Barcode
OGM1A 40 Standard Viscosity Bone Cement – With Gentamisin (1x40 g)	1711/SG	8682024000079
Powder Component Content	**Amount**	**raw material**
Polymethyl methacrylate	35,60 g	
Benzoyl Peroxide	0,4 g	
Barium Sulphate	4 g	Barium Sulfate
Gentamicin Sulfate	1 g	Gentamicin Sulfate Ph.Eur.9.0
Total Powder Amount	**41 g ± 2 g**	
Liquid Component Content	**Amount**	**raw material**
Methyl Methacrylate	19,6 ml	
N,N dimethyl p-toluidene	0,4 ml	
Hydroquinone	Trace amount (50 ppm)	
Total amount of liquid	**20 ml ± 1 ml**	

Name of the product	Reference No	Barcode
OGM1A 60 Standard Viscosity Bone Cement – With Gentamisin (1x60 g)	1071/SG	8682024000116
Powder Component Content	**Amount**	**raw material**
Polymethyl methacrylate	53,4 g	
Benzoyl Peroxide	0,6 g	
Barium Sulphate	6 g	Barium Sulfate
Gentamicin Sulfate	1,5 g	Gentamicin Sulfate Ph.Eur.9.0
Total Powder Amount	**61,5 g ± 3 g**	
Liquid Component Content	**Amount**	**raw material**
Methyl Methacrylate	29,4 ml	
N,N dimethyl p-toluidene	0,6 ml	
Hydroquinone	Trace amount (50 ppm)	
Total amount of liquid	**30 ml ± 1,5 ml**	

ORMED GRUP MEDİKAL TUR.SAĞ.HİZ.SAN.VE TİC.LTD.ŞTİ	**PRODUCTION DESCRIPTION** **Bone cement with antibiotic**	Document no: TD.02-03 Publishent Date: 07.03.2018 Revision No: 04 Revision Date: 10.08.2022

Low Viscosity With Gentamisin

Name of the product	Reference No	Barcode
OGM3A 20 Low Viscosity Bone Cement With Gentamisin (1x20 g)	1503/LG	8682024000048
Powder Component Content	**Amount**	**raw material**
Polymethyl methacrylate	17,80 g	
Benzoyl Peroxide	0,2 g	
Barium Sulphate	2 g	Barium Sulfate
Gentamicin Sulfate	0,5 g	Gentamisin Sülfat Ph.Eur.9.0
Toplam Toz Miktarı	**20,5 g ± 1 g**	
Liquid Component Content	**Amount**	**raw material**
Methyl Methacrylate	9,8 ml	
N,N dimethyl p-toluidene	0,2 ml	
Hydroquinone	Trace amount (50 ppm)	
Total amount of liquid	**10 ml ± 0,5 ml**	

Name of the product	Reference No	Barcode
OGM3A 40 Low Viscosity Bone Cement With Gentamisin Antibiyotikli (1x40 g)	1810/LG	8682024000086
Powder Component Content	**Amount**	**raw material**
Polymethyl methacrylate	35,60 g	
Benzoyl Peroxide	0,4 g	
Barium Sulphate	4 g	Barium Sulfate
Gentamicin Sulfate	1 g	Gentamisin Sülfat Ph.Eur.9.0
Toplam Toz Miktarı	**41 g ± 2 g**	
Liquid Component Content	**Amount**	**raw material**
Methyl Methacrylate	19,6 ml	
N,N dimethyl p-toluidene	0,4 ml	
Hydroquinone	Trace amount (50 ppm)	
Total amount of liquid	**20 ml ± 1 ml**	

Name of the product	Reference No	Barcode
OGM3A 60 Low Viscosity Bone Cement With Gentamisin (1x60 g)	1453/LG	86820240000123
Powder Component Content	**Amount**	**raw material**
Polymethyl methacrylate	53,4 g	
Benzoyl Peroxide	0,6 g	
Barium Sulphate	6 g	Barium Sulfate
Gentamicin Sulfate	1,5 g	Gentamisin Sülfat Ph.Eur.9.0
Toplam Toz Miktarı	**61,5 g ± 3 g**	
Liquid Component Content	**Amount**	**raw material**
Methyl Methacrylate	29,4 ml	
N,N dimethyl p-toluidene	0,6 ml	
Hydroquinone	Trace amount (50 ppm)	
Total amount of liquid	**30 ml ± 1,5 ml**	

Standards by raw materials:

Bone cement with antibiotic;

In the powder mixture; There are Polymethyl methacrylate, Barium sulfate, Benzoyl Peroxide and Gentamicin. There are polymethyl metacrylat, barium sulphate benzoyl peroxide and gentamicin in powder

In the liquid mixture; There are Methyl Methacrylate, N, N dimethyl p-toluidene, Hydoquinone.There are mehyl methacrylat, N N dimethyl p-tolyden, hydroquinone in liquid

The effect of powder to product

polymethyl metacrylat: It is main component of bone cement, after the reaction process, it become solid and it provides placing of implant to body

benzoyl peroxide: It provides inititation in reaction

barium sulphate: Ortopedik çimentoya radyo-opasite özelliği verir. (It provides feature of radio opacity to orthopedic bone cement

Gentamicin: Antibiotic

THE EFFECT OF LIQUID TO THE PRODUCT:

Methyl metacrylat: When react in polymethly metacrylat, polymerization occured

N,N dimetil p-toluiden : It make easier of bone cement's cold recovery

Hidrokinon : Under some conditions like exposing high temperature, it prevents early polymerization

4) PATIENT POPULATION

Bone cement with antibiotic can not be used in bone area and it can not ne used in patients who have strains which are insenstive to gentamicin and it can not be used in patients who have infection which is not recovered yet.

5 CLASSIFICATION

No	Name	Rule	Class	Ref No	UBB	GMDN
Bone Cement						
1	OGM1A 20 Standard Viscosity Bone Cement – With Gentamisin	2017/745 MDR Added 8 Rule **8**	III	1506/SG	8682024000031	35217
2	OGM3A 20 Low Viscosity Bone Cement – With Gentamisin	2017/745 MDR Added 8 Rule **8**	III	1503/LG	8682024000048	
3	OGM1A 40 Standard Viscosity Bone Cement – With Gentamisin	2017/745 MDR Added 8 Rule **8**	III	1711/SG	8682024000079	
4	OGM3A 40 Low Viscosity Bone Cement – With Gentamisin	2017/745 MDR Added 8 Rule **8**	III	1810/LG	8682024000086	
5	OGM1A 60 Standard Viscosity Bone Cement – With Gentamisin	2017/745 MDR Added 8 Rule **8**	III	1071/SG	8682024000116	
6	OGM3A 60 Low Viscosity Bone Cement – With Gentamisin	2017/745 MDR Added 8 Rule **8**	III	1453/LG	86820240000123	

Applicable Description	All medical devices that, when used separately, contain a substance that is considered a medicinal product in accordance with the Regulation on the Registrar of Medicinal Products for Human Use and that supports the effect of the medical device on humans, are classified as Class III.
The Explanation of GMDN CODE	35217 - A substance made from methylmethacrylate, polymethylmethacrylate, methacrylic acid esters or copolymers containing polymethylmethacrylate (PMMA) and polystyrene, used in arthroplastic treatments of joints to fix polymer or metal prosthetic implants to living bone. It can also be used as a filler in case of bone pathologies. The tool may contain an antibiotic.
Convenience Evaluation (Bone cement with antibiotic)	2017/745 MDR Medical Device Regulation Attachment 8 Rule **8**

-USERS WHO ARE AIMED

It is designed for using of medical staf

-NUMBER OF USING

Single use.

6) CONTRADICTIONS OF PRODUCT

the use of the product is contraindicated in case of infectious arthritis and active infection of the joint or joints to be replaced, or in the presence of a history of such infection. The use of the product is also contraindicated where a lack of musculature or neuromuscular alignment in the affected limb would render the procedure inappropriate.

It can be not be used if there is active or undertreated infection which is stem from insensitive strains to gentamicin

7) WARNINGS AND PRECAUTIONS

Before the using of bone cement, user should be aware about its features, processing, implementation. It is recommended that user should completely practise mixing, processing and placing procedures before the first time using.

It should be cautious that while liquid and powder are mixing, the all componenets in bottle and bag ought to be used. Datas from in vitro studires shows that the loss of monomer firstly depend on frequency of mixing and secondly, it depends on the duration of mixing.

However, precaution should be taken; not to knead the product for too long to prevent the polymerization process from progressing to the point where the cement loses sufficient softness and flexibility to fill the bone cavities and fix it to the prosthesis. After the application, during the completion of the in polymerization of the product, the position of the prosthesis must be kept fixed without moving it to ensure correct fixation. situ In situ completion of polymerization operates in the patient and it is exothermic reaction which significant amount is released. It is reported that the temperature reached to 110 cantigrat during polymerization. The long term effects of the generated and the resulting tissue damage are not known. Special precautions should be taken to detect and recover the temporary decrease in blood pressure that may occur when the product is implanted in the bone.

The sufficient air conditioning should be provided to annihilate maximum monomer steam in operating rooms because liquid monomer has a high volatility and flammability feature. Precaution should be taken when mixing the two compnenets to avoid excessive exposure to concentrated monomer vapors which may may cause irritation to the respiratory tract, eyes and possbily the liver. The liquid component is a strong lipid solvent. It caused contact dermatitis in susceptible individuals. Wearing a second pair of surgical gloves and following strict mixing instructions can reduce the possibility of hypersensitivity reactions. The compound should not be allowed to come into direct contact with sensitive tissues or be absorbed by the body. Soft contact lens manufacturers recommend removing such lenses "in environments where hazardous and irritating vapors are present.". Soft contact lenses are highly permeable and should not be used in the operating room while mixing Methyl methacrylate. Due to the lack of sufficient information, the use of the product in young patients is not recommended. Use in pregnancy: Although the results of teratology studies in animals are negative, the benefits need to be considered compareatively against the potential hazards to the mother or foetus for use by women who are pregnant or likely to become pregnant. Data from clinical trials have shown that strict adherence to effective surgical principles and techniques is an absolute necessity. Deep wound infection is a serious post-operative complication and it may require complete removal of the prosthesis and placed cement. Deep wound infection may be hiden and it may not be show itself for several years after surgery.

INFORMATIONS FOR PATIENTS

- Surgeons should inform patients about the limitations of reconstruction and the need to protect the implant from full weight carrying until adequate healing is achieved.
- Surgeons should inform patients that the product has a limited service life and it may need to be replaced in the future.
- Surgeons should warn the patient of surgical risks and potential adverse effects.
- • Dental procedures, endoscopic examinations, and other minor surgical procedures have been associated with transient bacteremia. Instruct the patient to inform their doctor that they are carrying an artificial hip replacement so that their doctor can decide whether to use antibiotic prophylaxis for such procedures.

8) SIDE EFFECTS

Transient blood pressure decreasing are infrequently seen following prosthetic operationing preparation or immediately after implantation of endoprostheses with PMMA bone cements. In individual cases, serious complications such as severe allergic reactions such as cardiac arrest, anaphylactic shock or even sudden death may occur. In order to avoid pulmonary and cardiovascular complications such as pulmonary embolism and cardiac

arrest, it is recommended to thoroughly wash the implantation site with isotonic solution (pulse lavage application) before placing the bone cement. In the case of pulmonary or cardiovascular occurence, the blood volume should be followed and if increasing blood volume requires, enhancement in blood volume should be operated. Anesthesiological measures should be taken in cases of acute respiratory failure.

The following adverse effects have been observed with the use of polymethyl methacrylate bone cements: thrombophlebitis, hemorrhage, trochanteric bursitis.

Other side effects observed: myocardial infarction, short-term cardiac arrhythmia, cerebrovascular situation. Beyond that, complications are possible during any surgical procedure.

The requirements of modern cementing technology must be taken into account in order to limit undesirable side effects and to ensure a firm and long-term anchorage of the bone cement in the vertebral body.

9) SIGNIFICANT INFORMATIONS FOR DOCTORS

Adverse reactions affecting the cardiovascular system have been attributed to leakage of unpolymerized liquid monomer into the circulatory system. Recent data show that the monomer is converted to methacrylic acid by rapid hydrolysis, and a significant portion of the circulating methacrylate is in the form of free acid rather than methyl ester.

No link has yet been established between varying circulating methyl methacrylate/methacrylic acid concentrations and changes in blood pressure. Reported hypotensive episodes occur primarily in patients with high or high normal blood pressure, hypovolemia, and pre-existing cardiovascular abnormalities. If a hypotensive reaction occurs, this may begin 10-165 seconds after bone cement operation This can take from 30 seconds to 56 minutes.

Although the etiology of cardiac arrest is unclear, it may be due to direct embolic effects or hypoxia induced by a pulmonary embolic event. Clinical experience has shown that meticulous cleaning of the medullary cavity prior to cement placement can significantly reduce fat, bone marrow and air embolism. Placement of liquid cement under pressure into a clean medullary canal has been shown to significantly improve the filling of bone cavities by contributing significantly to the safety of the bone cement interface. Precaution must be taken during continuous application of cement from the distal to the proximal position to prevent lamination in the cement.10)

PREPARATION AND OPERATION

After mixing the cement powder with the monomer liquid, a fast-setting, formable paste is formed and placed in bone cavities for fixation and/or filling purposes. A dose is prepared

when all the cement powder contained in a sachet is mixed with all the monomer liquid in an ampoule. The amount of cement paste required depends on the specific surgical operation and it also depends on performed technique which is used. Before starting the operation, at least one more dose of bone cement should be available as a backup.

OPENING UNDER STERILE CONDITIONS

It must be opened to the outer blister pack from the designated opening under sterile conditions so that the powder pack and the glass ampoule remain sterile when removed. Before opening the powder package, collect the contents by shaking or tapping it lightly, so you will prevent powder lossTo facilitate the opening of the glass ampoule, a predetermined breaking point was created in the neck region between the body and the head of the ampoule. Do not open the ampoule on the mixing device to avoid mixing cullet into the cement.

MIXING OF COMPONENTS:

The relative ratios of both components, i.e. powder and monomer, are exactly matched. Therefore, the sachet and ampoule must be completely emptied in order to obtain the optimum mixture. Cement components should only be filled into the mixing bowl just before mixing. Filling and mixing processes should be done under sterile conditions. The entire ampoule is poured into the Pet container with the powder and the mixing process is conducted here. The time of mixing is 30 seconds. During this time, the two components are mixed with each other by mixing them properly. The result is a composition in the form of a homogeneous paste. This composition is ready to be processed as soon as it becomes non-sticky to the rubber glove. Always mix the entire contents of one sachet with the entire contents of one ampoule of monomer liquid.

Working and freezing times are dependent on temperature, mixing process and humidity, and particularly the direct ambient temperature, i.e. the temperature of the cement powder, the temperature of mixing syste and temperature of table and hands are important. High temperature shortens standby, working and freezing times.

11) MECHANISM OF EFFECT

Bone cement is a space-filling substance formed as a result of polymerization of methyl methacrylate triggered by the combination of prepolymerized solid particles and liquid monomers. Before each application, the user manual of the manufacturer should be read and the paste and freezing times of the cement should be observed. Since cement does not form a chemical bond with the bone and becaue of it is not an adhesive with its physical properties, it only serves to fill the gaps between the bone and the implant. Among the bone-cement-implant interfaces, cement is the weakest bone interface. The most important

feature of cement is that it immediately stabilizes the implant. It provides a definite primary stabilization to the prosthesis; but it does not increase secondary biological detection. As it is a viscoelastic polymer, it provides the transfer of loads reaching the prosthesis to the bone with its elastic modulus close to the bone. It causes less stress shielding on the proximal femur than cementless prostheses. In order for the cement to adhere well to the bone, the bone surface should be clean and its relationship with the cortex should be in a large area. The thickness of the metaphysis and medulla should be as equal as possible, Cement needs to be applied with low viscosity and pressure. [13].

In the powder part of the cement, there are PMMA or MMA copolymers containing dibenzoyl peroxide (BPO), which is a reaction initiator. The powder also contains the radiopacifiers zirconium dioxide or barium sulfate. In addition to the powder, antibiotics or dyes can be added to powder. Neither dyestuff, antibiotic, nor radiopacifier play a role in chemical reactions. The initial reaction and free radicals are formed following the interaction of BPO, which is the initiator, in the powder and the activator DMpT in the liquid. By mixing the powder with the liquid, the powder absorbs the liquid and becomes a sticky, viscous liquid. This pasty structure is formed as a result of a chemical reaction called radical polymerization, and liquid monomers turn into polymers. When two of the increasing polymer chains meet, they combine with each other to form the non-reactive polymer molecule. Therefore, there are no free radicals in the environment. During this exothermic reaction, heat is released. For one hundred grams of MMA, 52 kJ (kilo joules) of heat is generated. Maximum heat generation is between about 60 and 120 °C, although it is affected by the chemical content of the cement, the powder-liquid ratio and the radiopacifier. high heat; necrosis not only causes local circulation disruption and fibrous tissue formation but also incomplete polymerization can lead to chemical necrosis. As shown in in vitro studies, if the cement structure is thick, the room temperature is high, and the monomer/polymer ratio is increased, more heat is produced while the cement hardens (freezes). Collagen is known to be denatured above 56 °C. However, in vivo studies have emphasized that the temperature does not usually rise above 50 °C. The reasons for this include the cooling effect of the local blood flow, the metal handle of the prosthesis spreads heat, being relatively wide bone-cement interface, and the poor heat conduction of the cement. [14].

Gentamicin, which is in the class of aminoglycosides, is a fast bactericidal drug that passes through the bacterial cell membrane with active transport. They are ineffective on anaerobic bacteria as they use active transport. Because active transport requires oxygen. The aminoglycoside entering the bacterial cell causes the genetic code to be misread and disrupts protein synthesis. Concomitant use with cell wall synthesis inhibitor antibiotics (such as beta-lactams, vancomycin) increases their effects. [3].

12) STORING

It should be stored in a dark environment below 25 °C.

It is flamable. It should keep away from sources that may cause ignition.

13) SHELF LİFE/STERILITY

Shelf life is determined as 36 months for sterile products.

Shelf life is printed on the folding box, protective aluminum sleeve and inner bag. If the specified date has passed, do not use the product.

The monomer is filled with aseptic filling, after which the final product (liquid and powder together) is sterilized by the ethylene oxide method.

The monomer is filled with aseptic filling, after which the final product (liquid and powder together) is sterilized by the ethylene oxide methodIf the cement powder turns yellow, do not use the cement.

14) IFU

It can be found in the box of product

13) RAW MATERIAL INFORMATION

<u>Standards as raw materials:</u>

Bone cement with antibiotic;

In the powder mixture; There are Polymethyl methacrylate, Barium sulfate and Benzoyl Peroxide and Gentemicin.

In the liquid mixture; Contains Methyl Methacrylate, N, N dimethyl p-toluidene, Hydoquinone.

Raw materials for all products are specified in the "3) Product Family/Content, Product Size and Content Information" section of this document.

14) PRODUCT LABEL AND PACKAGING INFORMATION

The product consists of 2 components, powder and liquid. The powder part is placed in a pet bagThe liquid component is presented in a bottle (ampoule). The bottle is packed in blister. Liquid and solid components should package with together by using blister. Finally, another packaging is made outside the blister packaging. Thus, each component is packaged 3 times.

- **Label information**

Ormed sends the antibiotic bone cement product to the current user as sterile. It is only for single use only before expiration date. The product should not be used if the packaging has been compromised or previously opened. All information and warnings about the product are on the product label.

Informations which is included in label ;

-Production description

-Referans number

-Lot number

-Production date

-Expiry date

-Manufacturer name

-Manufacturer adress

-The number of approved institution

-Barcode

17) Content Knowledge

DRUG INFORMATION

It includes bone cement with antibiotic.

ANIMAL TISSUE CONTENT

Bone cement with antibiotic does not include animal tissue.

CONTENT OF HUMAN BLOOD AND DERIVATIVES

Bone cement with antibiotic does not include content of human blood and derivatives

18) PERFORMANCE AND SECURITY

Product Performance Criteria

Our product performance criteria are determined by market and user requirements. Requirement checks are in the 93/42/EEC Medical Device Directive Annex I Essential Requirements section and Described under the heading Harmonized Standards.

Performance tests in the annexes of TS ISO 5833:2014 were applied to the Antibiotic Bone Cement product. Tests were made on sterile and aged product. Because the aged product is more challenging than the unaged product. Requires tests to be performed on aged products, with the possibility of some chemical and physical changes in the product or its packaging during the aging period. In addition, since gentamicin-added bone cement is a more biologically critical product, the tests were applied to gentamicin-added sterile and aged bone cement. The tests performed are given below. Test reports are given in the appendices.

The performance criteria determined accordingly are as follows:

Determination of the stability of the liquid component: The flow time (viscosity) of the liquid component is determined before and after accelerated aging by heating.

Determination of the pulping time of the bone cement liquid-powder mixture intended to be used in paste form: The bone cement is mixed and the time taken from the start of mixing until the mixture becomes non-glove sticky is recorded.

Determination of the maximum temperature and setting time for the liquid-powder mixture edilmesi: When the powder and liquid ingredients are mixed, the exothermic reaction is monitored and the maximum temperature reached by the batch is recorded. The hardening time is defined as the time it takes to reach the temperature between room temperature and maximum temperature.

Determination of intrusion of liquid-powder mixture of bone cement intended for use in paste form: The bone cement is compacted into a container with a perforated bottom surface. After the bone cement has hardened, the length of penetration into the holes is measured.

Determination of flexural modulus and flexural strength of polymerized bone cement

Standard Viscosity Gentamicin Bone Cement Test Results						
Test Name	**Standard No**	**Report No**	**Report Date**	**Acceptance criteria**	**Laboratory**	**Conclusion-Evaluation**
Liquid Component Fluidity Time	ISO 5833-EkA	131118-10	27.11.2018	<%10	Aya Validasyon	%6,9 Appropriate.
Pasting Time	ISO 5833-EkB	131118-10	27.11.2018	< 5min	Aya Validasyon	3min Appropriate.
Hardening Time	ISO 5833-EkC	131118-10	27.11.2018	3-15 min	Aya Validasyon	4min Apprpriate.

Maximum Temperature	ISO 5833-EkC	131118-10	27.11.2018	85-95℃	Aya Validasyon	90,6℃ Appropriate.
Intrusion Determination	ISO 5833-EkD	131118-10	27.11.2018	> 2mm	Aya Validasyon	3,8mm Appropriate.
Compression Strenght	ISO 5833-EkE	131118-10	27.11.2018	> 70MPa	Aya Validasyon	143 MPa Appropriate.
Bending strength and Bending module	ISO 5833-EkF	131118-10	27.11.2018	Strength > 50 Module> 1800	Aya Validasyon	Strength:55,78 MPa Module: 4091 MPa Appropriate.

Low Viscosity Gentamicin Bone Cement Test Results

Test Name	Standard No	Report No	Report Date	Acceptance criteria	Laboratory	Conclusion-Evaluation
Liquid Component Fluidity Time	ISO 5833-EkA	131118-13	27.11.2018	<%10	Aya Validasyon	%9,6 Appropriate.
Pasting Time	ISO 5833-EkB	131118-13	27.11.2018	< 5dk	Aya Validasyon	3min Appropriate.
Hardening Time	ISO 5833-EkC	131118-13	27.11.2018	3-15 dk	Aya Validasyon	4min Appropriate
Maximum Temperature	ISO 5833-EkC	131118-13	27.11.2018	85-95℃	Aya Validasyon	92,9℃ Appropriate.
Intrusion Determination	ISO 5833-EkD	131118-13	27.11.2018	> 2mm	Aya Validasyon	4,0 mm Appropriate.
Compression Strenght	ISO 5833-EkE	131118-13	27.11.2018	> 70MPa	Aya Validasyon	143 MPa Appropriate.
Bending strength and Bending module	ISO 5833-EkF	131118-13	27.11.2018	Strength > 50 Module> 1800	Aya Validasyon	Stregth:66,11 MPa Module: 4937 MPa Appropriate.

Product Safety Criteria

The safety criteria of our product are determined by the market and user requirements. Requirement checks are described in Annex I Basic Requirements of the 93/42/EEC Medical Device Directive and under the heading Harmonized Standards. The performance criteria determined accordingly are listed below.

Criteria	Declaration
Biocompatibility	The product will be biocompatible.
Clean Room Validation	Products must be produced in a clean room.
Sterilization Validation	Products must be sterilized with ethyleneoxide and remain sterile for the life of the product.
Packaging Validation	The products in the package must be sterile and show the required performance.
Flushing Validation	Washing validation of the bottle in which the liquid is placed should be done.
Aseptic Filling	Filling of the liquid should be carried out aseptically.
Powder Mixing Validation	It should be verified that the powder is homogeneously mixed.
Bulb Flushing Validation	Flushing of bulbs must be validated.
Aseptic Filling Validation	Aseptic filling must be validated. Process in which the liquid raw material is filled into the bottle and capped must be validated.

The table below is prepared which is based on ISO 10993-1 and Evaluation and Testing version 2009The E markings (E) indicate the testing requirements for biological safety assessment according to ISO 10993-1 There is no difference in production technologies, content amounts, purpose of use and any other issue between Gentamicin-added OGM

Table A.1 — Endpoints to be addressed in a biological risk assessment

Medical device categorization by			Endpoints of biological evaluation														
Nature of Body Contact		Contact Duration															
Category	Contact	A – limited (≤24 h) B – prolonged (>24 h to 30 d) C – Long term (> 30 d)	Physical and/or chemical information	Cytotoxicity	Sensitization	Irritation or intracutaneous reactivity	Material mediated pyrogenicity [a]	Acute systemic toxicity [b]	Subacute toxicity [b]	Subchronic toxicity [b]	Chronic toxicity [b]	Implantation effects [b,c]	Hemocompatibility	Genotoxicity [d]	Carcinogenicity [d]	Reproductive/ developmental toxicity [d,e]	Degradation [f]
Surface device	Intact skin	A	X [g]	E [h]	E	E											
		B	X	E	E	E											
		C	X	E	E	E											
	Mucosal membrane	A	X	E	E	E											
		B	X	E	E	E	E	E	E			E					
		C	X	E	E	E	E	E	E	E	E	E		E			
	Breached or compromised surface	A	X	E	E	E	E	E									
		B	X	E	E	E	E	E	E			E					
		C	X	E	E	E	E	E	E	E	E	E		E	E		
External communicating device	Blood path, indirect	A	X	E	E	E	E	E					E				
		B	X	E	E	E	E	E	E				E				
		C	X	E	E	E	E	E	E	E	E	E	E	E	E		
	Tissue/ bone/ dentin [i]	A	X	E	E	E	E	E									
		B	X	E	E	E	E	E	E			E		E			
		C	X	E	E	E	E	E	E	E	E	E		E	E		
	Circulating blood	A	X	E	E	E	E	E					E	E [j]			
		B	X	E	E	E	E	E	E			E	E	E			
		C	X	E	E	E	E	E	E	E	E	E	E	E	E		

Table A.1 *(continued)*

Medical device categorization by			Endpoints of biological evaluation														
Nature of Body Contact		Contact Duration															
Category	Contact	A – limited (≤24 h) B – prolonged (>24 h to 30 d) C – Long term (> 30 d)	Physical and/or chemical information	Cytotoxicity	Sensitization	Irritation or intracutaneous reactivity	Material mediated pyrogenicity [a]	Acute systemic toxicity [b]	Subacute toxicity [b]	Subchronic toxicity [b]	Chronic toxicity [b]	Implantation effects [b,c]	Hemocompatibility	Genotoxicity [d]	Carcinogenicity [d]	Reproductive/ developmental toxicity [d,e]	Degradation [f]
Implant device	Tissue/ bone	A	X	E	E	E	E	E				E		E			
		B	X	E	E	E	E	E	E			E		E			
		C	X	E	E	E	E	E	E	E	E	E		E	E		
	Blood	A	X	E	E	E	E	E				E	E	E			
		B	X	E	E	E	E	E	E			E	E	E			
		C	X	E	E	E	E	E	E	E	E	E	E	E	E		

[a] Refer to ISO 10993-11, Annex F.

[b] Information obtained from implantation assessments can be appropriate to address acute systemic toxicity, subacute toxicity, subchronic toxicity and chronic toxicity.

[c] Relevant implantation routes should be considered. For instance devices in contact with intact mucosal membranes should ideally be studied/ considered in contact with intact mucosal membranes.

[d] If the device can contain substances known to be carcinogenic, mutagenic and/or toxic to reproduction, this should be considered in the risk assessment.

[e] Reproductive and developmental toxicity should be addressed for novel materials, materials with a known reproductive or developmental toxicity, devices with relevant target populations (e.g., pregnant women), and/or devices where there is the potential for local presence of device materials in the reproductive organs.

[f] Degradation information should be provided for any devices, device components or materials remaining within the patient, that have the potential for degradation.

[g] X means prerequisite information needed for a risk assessment.

[h] E means endpoints to be evaluated in the risk assessment (either through the use of existing data, additional endpoint-specific testing, or a rationale for why assessment of the endpoint does not require an additional data set). If a device is manufactured from novel materials, not previously used in medical device applications, and no toxicology data exists in the literature, additional endpoints beyond those marked "E" in this table should be considered.

[i] Tissue includes tissue fluids and subcutaneous spaces. For gas pathway devices or components with only indirect tissue contact, see device specific standards for biocompatibility information relevant to these devices.

[j] For all devices used in extracorporeal circuits.

Antibiotic and non-added. In this sense, OGM Bone Cement with Gentamicin was subjected

to biocompatibility tests because it has an extra content and is a more critical sample in biological and mechanical terms according to scientific data.

In the Technical Universal Verification, our Gentamicin Added Bone Cement product is given the cytotoxicity test EN ISO 10993-5:2009-10, EN ISO 10993-10:2014 sensitization test, OECD/OCDE 487 genotoxicity test, EN ISO 10993-11:2009 Acute Systemic Toxicity and

Test Name	Standard No	Report Date	Report No	laboratory
Cytotoxicity	ISO 10993-5	18.03.2022	KBYU0005/2022-03/BYU/1565	Technical Universal Verification
Sensitization	ISO 10993-10	15.03.2022	KBYU0005/2022-03/BYU/1568	Technical Universal Verification
Intradermal Irritation	ISO 10993-10	01.02.2022	KBYU0005/2022-02/BYU/1557	Technical Universal Verification
Pyrogenicity	European Pharmacoope 9.0 (2.6.8)	04.04.2022	KBYU0005/2022-04/BYU/1575	Technical Universal Verification
Subacute Systemic Toxicity	ISO 10993-11	25.03.2022	KBYU0005/2022-03/BYU/1572	Technical Universal Verification
Acute Systemic Toxicity	ISO 10993-11	09.02.2022	KBYU0005/2022-02/BYU/1558	Technical Universal Verification
Genotoxicity	OECD/OCDE 487	24.03.2022	KBYU0005/2022-03/BYU/1570	Technical Universal Verification

Subacute Systemic toxicity tests were applied. The evaluations of these tests were made according to EN ISO 10993-1:2018 and it was observed that no cytotoxic compounds were found in the material. Extract of test material did not reduce cell viability relative to negative control. According to the LDH (lactatehydrogenase) release test, which measures the integrity of the cell membrane, the material extract does not damage the cell membrane. According to the epicutaneous test, no skin irritation or skin sensitization was observed after 24, 48 and 72 hours in the test performed on 10 volunteers. According to the applied Ames test, no genotoxic effect of the product was observed. Accordingly, the product is not expected to have any genotoxic effects. Our products are biocompatible according to the ISO 10993 tests carried out. (Technical document Chapter 13 TD03-13 Biological Assessment Report)