



**BiO Degulator
M**

BiO Degulator M
and
BiO Degulator nT

High-Gold
Casting Alloys



**BiO Degulator
nT**



BiO Degulo

DeguDent

A Dentsply International Company

Why casting alloys with BiO Degulor M and BiO Degulor nT?

Gold is the improved version of standard in restorative dentistry for many, many decades. A prominent example is Degulor® M.

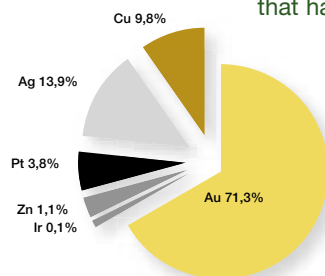
Introduced as early as 1955, Degulor M continues to be the most frequently dental gold casting alloy in Germany.

Starting from this high level of performance and acceptance, Degulor M was carefully improved and modified to meet the requirements of modern state-of-the-art dentistry.

With its two high-gold alloys, BiO Degulor M and BiO Degulor nT, DeguDent now offers a diligently improved version of a gold standard that has held for more than fifty years.

BiO Degulor M

The logical result of the continuous improvement of Degulor M, the leading casting alloy that has been on the market since 1955.



New BiO Degulor M no longer contains any Palladium. It is a high-gold alloy especially characterized by its high biocompatibility. BiO Degulor M is very fine-grained, which is the most important prerequisite for its very high corrosion stability.

At the same time, its casting, polishing and processing properties are fully on a par with those of the traditional Degulor M dental alloy.

Its excellent strength allows this alloy to be used for any kind of reconstruction: from single crowns and bridges of any width to superstructures and even major connectors.

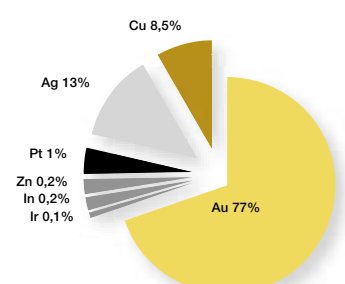
BiO Degulor nT

A new alloy in the DeguDent portfolio, formulated specifically for inlays – with a high gold content and a deep-yellow hue.

The very high yield strength of this alloy makes finishing a breeze – both in the dental laboratory and at chairside.

The fracture resistance and the fine-grained consistency of this material facilitate a high-precision marginal fit with no chipping. The same fine-grained consistency is also responsible for the alloy's high corrosion resistance.

The alloy is easy to cast and does not produce any slag when melted. It is easy to process and manipulate and easy to polish. BiO Degulor nT does not contain any Palladium.



BiO Degulor M

All the benefits at a glance

Material properties

- palladium-free
- biocompatible
- high strength
- high corrosion resistance
($< 10 \mu\text{g}/\text{cm}^2$ in 7 days,
EN ISO 1562)
- extra hard

Processing

- brilliant polishing properties
- ideal casting properties
- excellent milling properties
- optimally suited for soldering and laser-welding
- can be pickled

Indications

- Milling technique
- Suitable for bridges of any width
- Cast-metal frameworks for dentures
- Multiple surface fillings
- Superstructures
- Crowns

Technical specifications for BiO Degulor M

Type	extra hard pursuant to EN ISO 1562	
Color	yellow	
Composition in	mass-%	
Au and Pt-group metals	75,2	
Gold (Au)	71,3	
Platinum (Pt)	3,8	
Silver (Ag)	13,9	
Copper (Cu)	9,8	
Zinc (Zn)	1,1	
Iridium (Ir)	0,1	
Melting range (°C)	880 – 930	
Pre-heating temperature (°C)*	700	
Casting temperature (°C)	1050	
Vickers hardness (HV 5)	c) 240	h) 240
0,2% yield strength (N/mm ²)*	c) 550	h) 550
Tensile strength (N/mm ²)*	c) 680	h) 700
Elongation at fracture (%)*	c) 31	h) 16
Density (g/cm ³)	15,5	
Solders to use	Biolor®-Solder G 820	

*Measurements performed on samples pursuant to EN ISO 1562

c = attainable values after casting

h = hardened (15 min at 700 °C + 15 min at 450 °C)



BiO Degulor nT

All the benefits at a glance

Material properties

- palladium-free
- biocompatible
- pronounced yellow color
- excellent finishing properties
- very high yield strength
- fine-grained microstructure
- high corrosion resistance
($< 10 \mu\text{g}/\text{cm}^2$ in 7 days
EN ISO 1562)

Processing

- brilliant polishing properties
- ideal casting properties
- excellent milling properties
- optimally suited for soldering and laser-welding
- can be pickled

Indications

- Single-surface fillings
- Dual-surface fillings
- Multiple-surface fillings
- Onlays
- Partial crowns
- Crowns

Technical specifications for BiO Degulor nT

Type	medium hard pursuant to EN ISO 1562		
Color	yellow		
Composition in	mass-%		
Au and Pt-group metals	78,1		
Gold (Au)	77,0		
Platinum (Pt)	1,0		
Silver (Ag)	13,0		
Copper (Cu)	8,5		
Zinc (Zn)	0,2		
Indium (In)	0,2		
Iridium (Ir)	0,1		
Melting range (°C)	900 – 940		
Pre-heating temperature (°C)*	650		
Casting temperature (°C)	1050		
Vickers hardness (HV 5)	c) 120	s) 110	h) 160
0,2%-yield strength (N/mm ²)*	c) 240	s) 230	h) 370
Tensile strength (N/mm ²)*	c) 420	s) 400	h) 500
Elongation at fracture*	c) 45	s) 45	h) 27
Density (g/cm ³)	15,4		
Solders to use	Degulor [®] -Solder 2		

*Measurements performed on samples pursuant to EN ISO 1562

c = attainable values after casting

s = soft (10 min at 730 °C)

h = hardened (10 min at 730 °C + 30 min at 230 °C)

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