



Degudent Kiss

The high-gold alloy that follows the conventional Kiss concept



DeguDent

A Dentsply International Company

High strength – stable – simple

A high-gold ceramic-bonding alloy has been added to the innovative Kiss ceramic concept – Degudent Kiss. This alloy is suitable for bonding with high-fusing ceramics such as Duceram® Kiss. The alloy is characterized by very high strength and is particularly suitable for use in comprehensive restorations and implant superstructures. The alloy remains free of any distortions after ceramic firing. Both materials – the alloy and the ceramics – have been developed together. Our systematic approach means safety for you and your patients.

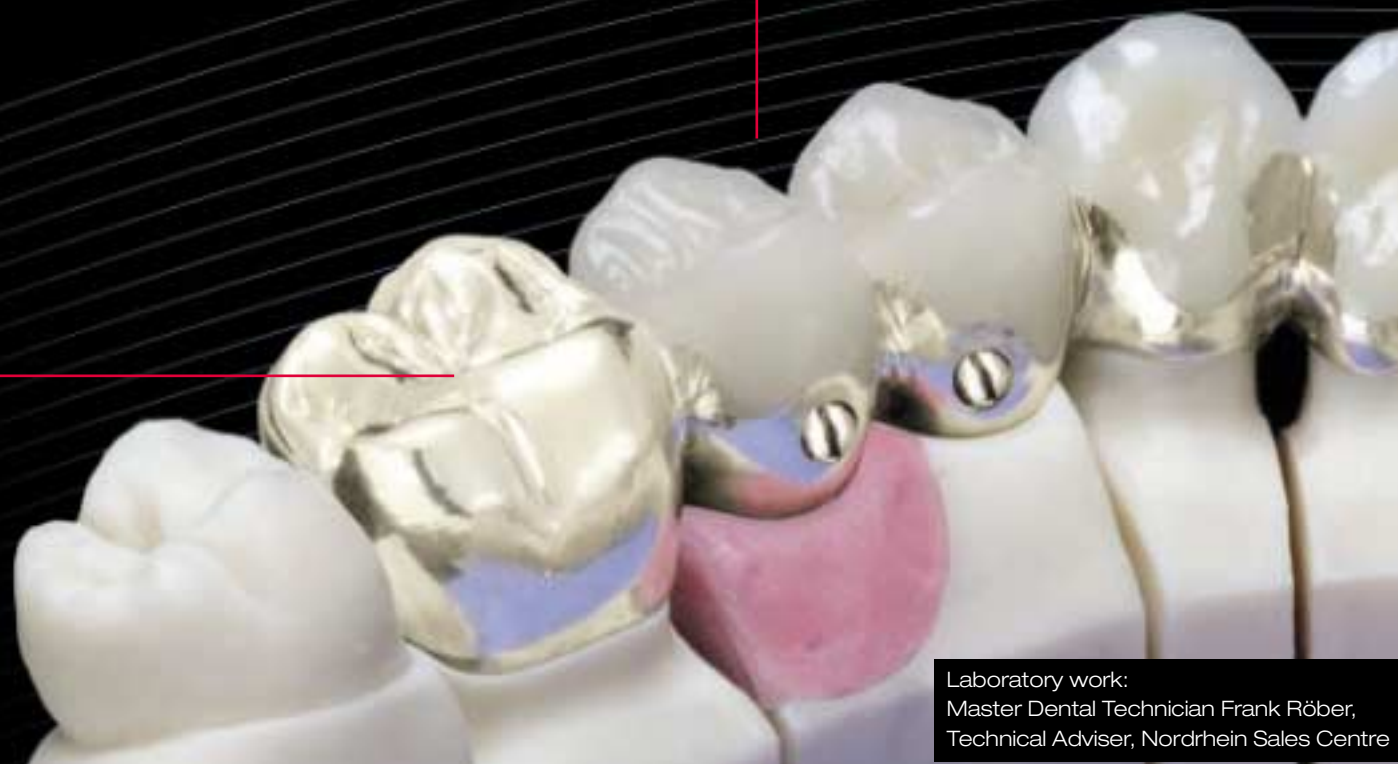
The alloy

Degudent Kiss is a high-gold ceramic-bonding alloy with a light yellow colour and a melting range of 1140 to 1220 °C.

Degudent Kiss alloy does not contain any copper and forms a bright, anthracite oxide. The ideal precondition for building sophisticated aesthetic veneers with Duceram Kiss! Because the two components were developed together and tailored to each other, the bond between the alloy and the ceramic is excellent.

Economical considerations

Thanks to an optimized CTE of 14.1 $\mu\text{m}/\text{m}\cdot\text{K}$ (25–500 °C) and 14.3 $\mu\text{m}/\text{m}\cdot\text{K}$ (25–600 °C), Degudent Kiss does not require either long-term cooling or a tempering phase. For this type of alloy Degudent Kiss has a very low oxidizing temperature of only 930 °C. This reduces wear and tear on the ceramic furnace and shortens firing times. In addition, it is possible to use quick heat-up rates without risk of distortions. Working with a high-gold ceramic system cannot be any more economical than this. Therefore, the work process is economically perfect.



Laboratory work:
Master Dental Technician Frank Röber,
Technical Adviser, Nordrhein Sales Centre



Processing

The alloy is easy to cast, without complications – regardless of whether you are working with a vacuum-pressure casting machine, an induction unit or with an open flame. Degudent Kiss is easy to finish, polish and machine without any smears. Suitable solders and a specific laser welding wire are available for mastering connection tasks.

Veneering

The new conventional high-fusing ceramic, Duceram Kiss, is ideally suited for veneering. With its reduced 73 ceramic materials, Duceram Kiss sets new standards in functionality and economy. You will be overwhelmed to see how easy it is to reproduce colour thanks to the colour concept used and to the new dimensionally stable opal incisals. Both components – the alloy and the ceramics – complement each other ideally.



All advantages at a glance.

Material properties:

- High corrosion resistance
- Biocompatible
- Extra strong
- Ceramic bonding with Duceram Kiss
- Excellent heat resistance during ceramic firing
- Excellent bonding between metal and ceramics
- Bright, anthracite oxide
- Contains no copper

Processing:

- Can be cast in all common melting and casting units
- Uncomplicated casting and finishing
- Low oxidizing temperature of only 930 °C
- No long-term cooling

Indications:

- Multiple-surface fillings
- Crowns
- Bridges of any physiological span
- Machined components
- Large connectors
- Implant work and super-structures
- Telescopic crowns, attachments and bar-retained restorations

Technical specifications:

Type: Extra hard pursuant to ISO 1562

Shade: Light yellow

Composition in:

	Mass %	Atom %
Au and Pt group metals	96.0	
Gold (Au)	79.4	72.6
Platinum (Pt)	10.5	10.1
Palladium (Pd)	6.0	9.7
Silver (Ag)	1.3	2.2
Indium (In)	1.5	2.4
Zinc (Zn)	1.0	2.7
Tantalum (Ta)	0.2	0.2
Iridium (Ir)	0.1	0.1

Melting range (°C) 1140–1220

Average linear CTE* (µm/m·K) 14.1 (25–500 °C)
14.3 (25–600 °C)

Vickers hardness (HV5) b 220
a 230

0,2 % yield strength** (N/mm²) b 590
a 590

Tensile strength** (N/mm²) b 670
a 670

Elongation at fracture** (%) b 6
a 4

Density (g/cm³) 18.2

*Coefficient of thermal expansion, **Measurements performed in accordance with EN ISO 9693

a = Hardened

b = Achievable hardness after ceramic veneering

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