





CONCEPT PRODUCTS

cad cam



**Made in Italy:
the concept of quality
for Dental Prostheses**

-  **ZYTTRIA®**
ZIRCONIUM OXIDE BLANKS
WHITE - EXTRA TRANSLUCENT - PRE COLOURED
-  **AQUA**
WATER-BASED LIQUID COLOR FOR ZIRCONIA
-  **pmmacam**
PMMA FOR TEMPORARY RESTORATIONS
-  **pmmacast**
PMMA FOR CASTING TECHNOLOGY
-  **cera wax**
WAX FOR CASTING TECHNOLOGY



Made in Italy



The production is **made in Italy**, in Busseto (Parma), famous as the birthplace of the great composer and musician Giuseppe Verdi.

The Made in Italy products by CONCEPT are not only synonymous with quality and control in each step of the production process, but a real idea of style.

Our aim is to go beyond the concept of assistance and create a genuine partnership with our customers, in order to supply our technical and productive skills and sales flexibility to those who process our products.

Quality control



Quality control is performed in each step of the production process, starting from selection of raw materials supplied by certified Japanese companies.

Traceability of the components used is ensured across the entire production chain.

The production line accomplishes the following standards:

- **UNI EN ISO 9001-2008**
- **Dir. 93/42/EC adapted to 2007/47/CE**
- **UNI EN ISO 14971-2008.**

CONCEPT products accomplish **CE 0476** certification.





**Italian know-how
German technology**

CO.N.CE.P.T. (Compagnia nuove ceramiche per la tecnica) was created thanks to the long experience of its technicians and managers, who have worked in the field of technical ceramics and innovative materials.

Italian know-how, together with German technology, ensures technical reliability and flexibility to meet the demands of a market in continuous development.

We design and manufacture products for dentistry.

We combine experience, technologies and production skills focusing on four core values:

- research
- innovation
- quality
- service

Each manufacturing phase includes checkings to guarantee the final product specifications: dimensions, dimensional tolerances, shrinkage of Zirconia blanks after sintering.

Each single step is managed by operators always under the supervision of our Quality Control staff. Final controls are performed on all products.

The whole Concept ceramic processing is subjected to severe monitoring.



ZYTTRIA®

ZYTTRIA®, Concept trade name of products made with Yttria-stabilised Zirconia, is used to manufacture ceramic dental prosthetics.

Class IIA (dir. 93/42/EEC, adap. dir. 2007/47/EC)



Technical Data Sheet ZYTTRIA®

	Z401 WHITE TRASLUCENT	Z402 EXTRA-TRASLUCENT	Z402 EXTRA-TRASLUCENT PLUS	Z COLOR Z	COLOR Z EXTRA-PLUS
Zirconia stabilizer	Y ₂ O ₃	Y ₂ O ₃	Y ₂ O ₃	Y ₂ O ₃	Y ₂ O ₃
Color	White Translucent	White Super-Translucent	White Super-Translucent	05,08,10,13,20,21,22	05,08,10,13,20,21,22
Sintering Temperature	1450°C	1530°C	1450°C-1500°C	1450°C	1450°C
CHEMICAL FORMULATION					
ZrO ₂ +HfO ₂	> 94.5%	> 94.5%	> 94.2%	> 94.5%	> 94%
Y ₂ O ₃	5.15% ± 0.2%	5.15% ± 0.2%	> 5.7%	5.15% ± 0.2%	> 5.15%
Al ₂ O ₃	0.25%±0.1%	< 0.1%	0,09 : 0,15%	0.25% ± 0.1%	< 0.1%
SiO ₂	< 0.02%	< 0.02%	< 0.01%	< 0.02%	< 0.01%
Fe ₂ O ₃	< 0.01%	< 0.01%	< 0.01%	<0,3%	< 0.1%
NaO ₂	< 0.04%	< 0.04%	< 0.01%	< 0.04%	< 0.04%
PHYSICAL PROPERTIES					
Sintered density	≥ 6.05 g/cm ³	≥ 6.05 g/cm ³	> 6.06g/cm ³	≥ 6.05 g/cm ³	> 6.05g/cm ³
Water absorption	Not absorb	Not absorb	Not absorb	Not absorb	Not absorb
Vickers hardness	> 12.5 GPa	> 12.5 GPa	> 12.5 GPa	> 12.0 GPa	> 12.0 GPa
Porosity	0	0	0	0	0
Compressive strength	> 2100 MPa	> 2100 MPa	> 2100 MPa	> 2100 MPa	> 2100 MPa
Bending strength(3 p.)	> 1200 MPa	> 1000 MPa	> 1100 MPa	> 1100 MPa	> 1100 MPa
Young's modulus	200 GPa	200 GPa	200 GPa	200 GPa	200 GPa
Fracture Toughness (KIC) Mpa m ^{1/2}	9	9	9	10	10
Thermal conductivity W/mx°k (Kelvin)	2.5°K	2.5°K	2.5°K	2.5°K	2.5°K
Heat shock (presintered)	220°C	220°C	220°C	220°C	220°C
Thermal expansion coefficient:					
20°C-400°C	9,6*10 exp-6/°C	9,6*10 exp-6/°C	9,6*10 exp-6/°C	9,6*10 exp-6/°C	9,6*10 exp-6/°C
20°C-800°C	10,7*10 exp-6/°C	10,7*10 exp-6/°C	10,5*10 exp-6/°C	10,7*10 exp-6/°C	10,5*10 exp-6/°C
Radioactivity	<0,001 Bq/g	<0,001 Bq/g	<0,001 Bq/g	<0,001 Bq/g	<0,001 Bq/g

The above data are average values obtained from specimens and cannot be used for any shape or size of the pieces.

The concept of Italian quality



- **MADE IN ITALY**
- **JAPANESE RAW MATERIAL**
- **GERMAN TECHNOLOGY**
- **Isostatic pressing**
- **High Translucency**
- **Excellent Fitness (Uniform Shrinkage)**
- **High technological performances**
- **High impact and tensile strength**

The presintered ZYTTRIA products, after sintering, show high performances:

High breakage resistance

Thicknesses can be lower than 1mm (minimum limit when using precious alloys such as gold-platinum), thus allowing the manufacturing of extended, light and robust bridges.

High wear resistance

Thanks to its strong molecular cohesion, it does not wear out during the mastication, unlike other materials.

High breaking strength

Toughness and flexibility are characteristics of this material.

High hardness

Almost two times higher than CrNi steel or classical porcelain for dental use.

Low thermal conductivity

Twenty times less than steel, it avoids the sensitization to warm and cold.

Excellent resistance to chemical damage

Resistant to agents and bacterial flora present in the oral cavity and food.

Excellent aesthetical results

The harmonization between prosthesis and adjacent teeth is much easier, thanks to the semitranslucency that allows a "natural" coloring.

Biocompatibility

Its structure, closer to a mineral than to a metal, is compatible with gingiva and bones.

Metal-free

Anallergic, thanks to the absence of metals.

Transparency to X-rays and non-magnetic

Extremely useful in the case of X-rays, CT scans, etc.



ITALIAN MANUFACTURING JAPANESE POWDERS ISOSTATIC PRESSING

FIRST-CLASS TECHNICAL
PERFORMANCES
HIGH AESTHETIC OUTPUT
IN SEVERAL THICKNESSES
AND SHAPES

CONCEPT products are provided with a User Manual containing useful recommendations for a proper manufacturing, thus ensuring the highest quality.



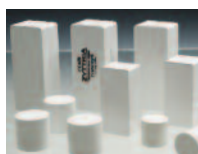
COMPATIBLE WITH AMANN GIRRBACH* CAD CAM SYSTEM

C98250AO	PLATE WITH FRAME	Z 71	H 12
C98251AO	PLATE WITH FRAME	Z 71	H 14
C98252AO	PLATE WITH FRAME	Z 71	H 16
C98253AO	PLATE WITH FRAME	Z 71	H 18
C98254AO	PLATE WITH FRAME	Z 71	H 20
C98255AO	PLATE WITH FRAME	Z 71	H 25



COMPATIBLE WITH SIRONA* CAD CAM SYSTEM
(check the equipment you use)

C98301S	PARALLELEPIPED WITH PIN	21x15x15,5mm
C98302S	PARALLELEPIPED WITH PIN	20x19x15,5mm
C98305S	PARALLELEPIPED WITH PIN	40x15x14mm
C98306S	PARALLELEPIPED WITH PIN	40x19x15,5mm
C98316S	PARALLELEPIPED WITH PIN MC XL	55x19x15,5mm
C98298S	PARALLELEPIPED WITH PIN MC XL	62x25x22mm
C98320S	PARALLELEPIPED WITH PIN MC XL	65x25x22mm
C98327S	PARALLELEPIPED WITH PIN MC XL	65x40x22mm
C98322S	PARALLELEPIPED WITH PIN MC XL	85x40x22mm



COMPATIBLE WITH ZIRKONZHAN* MANUAL PANTOGRAPH

C98205K	CILINDER	Z1	Ø16mm H16mm**
C98214K	CILINDER	Z1 ALTO	Ø20mm H20mm**
C98309M	PARALLELEPIPED	Z3	43x20x16mm**
C98310M	PARALLELEPIPED	Z3 ALTO	43x20x20mm**
C98319Z	PARALLELEPIPED	Z7	62x25x20mm
C98321Z	PARALLELEPIPED	Z9	75x36x16mm
C98322Z	PARALLELEPIPED	Z9 ALTO	75x36x22mm
C98323Z	PLATE	Z12	H 16
C98325Z	PLATE	Z16	H 16
C98326Z	PLATE	Z16	H 22



**Z1 e Z3: for use with CONCEPT ADAPTER



ZYTTRIA®

ZIRCONIUM OXIDE for DENTAL PROSTHESES

Z401 WHITE TRASLUCENT

WHITE TRASLUCENT
SINTERING 1450°C

Z COLOR EXTRA-PLUS

PRE-COLOURED TRASLUCENT
SINTERING 1450°C

Three shade variants: 05 LIGHT-08 MEDIUM-10 INTENSE
Others colors on demand.

Z402 EXTRA-TRASLUCENT

WHITE HIGH TRANSLUCENCY
SINTERING 1530°C
“full contour” Zirconia

Z402 EXTRA-TRASLUCENT PLUS

WHITE HIGH TRANSLUCENCY
SINTERING 1450°C

A new generation of *“full contour”* Zirconia:
high translucency, high dynamic load resistance,
high ageing resistance

COMPATIBLE WITH ZIRKONZHAN* CAD CAM SYSTEM



C98060Z	DISC	Ø95mm H10mm
C98061Z	DISC	Ø95mm H12mm
C98065Z	DISC	Ø95mm H14mm
C98066Z	DISC	Ø95mm H16mm
C98070Z	DISC	Ø95mm H18mm
C98075Z	DISC	Ø95mm H22mm
C98080Z	DISC	Ø95mm H25mm

COMPATIBLE WITH WIELAND* AND OPEN CAD-CAM SYSTEMS



C98000W	DISC WITH STEP 10mm	Ø98mm H10mm
C98001W	DISC WITH STEP 10mm	Ø98mm H12mm
C98002W	DISC WITH STEP 10mm	Ø98mm H14mm
C98003W	DISC WITH STEP 10mm	Ø98mm H16mm
C98004W	DISC WITH STEP 10mm	Ø98mm H18mm
C98005W	DISC WITH STEP 10mm	Ø98mm H20mm
C98007W	DISC WITH STEP 10mm	Ø98mm H25mm
C98008W	DISC WITH STEP 10mm	Ø98mm H30mm

COMPATIBLE WITH KAVO* CAD CAM SYSTEM



C98205K	CILINDER	Ø16mm H16mm	C98020W	DISC	Ø99mm H10mm
C98214K	CILINDER	Ø20mm H20mm	C98021W	DISC	Ø99mm H12mm
C98307K	PARALLELEPIPED	42x20x16mm	C98022W	DISC	Ø99mm H14mm
C98308K	PARALLELEPIPED	42x20x20mm	C98023K	DISC	Ø99mm H16mm
C98317K	PARALLELEPIPED	60x25x20mm	C98024W	DISC	Ø99mm H18mm
			C98025K	DISC	Ø99mm H20mm
			C98040K	DISC WITH STEP 16mm	Ø99mm H25mm

*Names and brands of those milling systems are registered trademarks of the respective companies



TOP MATERIAL for CAD CAM

COMPATIBLE WITH WIELAND® AND OPEN SYSTEMS			COLOR
C99PA9815W	DISC Ø98mm th15mm WITH STEP 10mm		A2 - A3 - B1
C99PA9820W	DISC Ø98mm th20mm WITH STEP 10mm		A2 - A3 - B1
COMPATIBLE WITH ZIRKONZHAN® SYSTEM			
C99PA9516Z	DISC Ø95mm th16mm		A2 - A3 - B1
C99PA9520Z	DISC Ø95mm th20mm		A2 - A3 - B1
COMPATIBLE WITH AMANN GIRRBACH® SYSTEM			
C99PA1013A	DISC Z-TEC th13mm		A2 - A3 - B1
C99PA1020A	DISC Z-TEC th20mm		A2 - A3 - B1

pmmacam

PMMA FOR SINGLE CROWNS AND LARGE BRIDGES

Top technical properties for long-term products.

Available in colors A2, A3, B1.



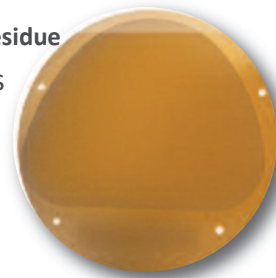
COMPATIBLE WITH WIELAND® AND OPEN SYSTEMS			
C99PC9816W	DISC Ø98mm Sp16mm WITH STEP 10mm		IVORY / BLUE
C99PC9820W	DISC Ø98mm Sp20mm WITH STEP 10mm		IVORY / BLUE
COMPATIBLE WITH ZIRKONZHAN® SYSTEM			
C99PC9516Z	DISC Ø95mm Sp16mm		IVORY / BLUE
C99PC9520Z	DISC Ø95mm Sp20mm		IVORY / BLUE
COMPATIBLE WITH AMANN GIRRBACH® SYSTEM			
C99PC1013A	DISC Z-TEC Sp13mm		IVORY / BLUE
C99PC1020A	DISC Z-TEC Sp20mm		IVORY / BLUE

pmmacast

CASTABLE PMMA
100% burnT out without residue

Pmma model for crowns and bridges produced by melting and extra-pressing. To check big structures before milling Zirconia.

IT IS NOT A MEDICAL PRODUCT



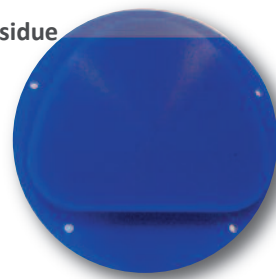
COMPATIBLE WITH WIELAND® AND OPEN SYSTEMS			
C99WX9815W	DISC Ø98mm Sp15mm WITH STEP 10mm		BLUE
C99WX9820W	DISC Ø98mm Sp20mm WITH STEP 10mm		BLUE
COMPATIBLE WITH ZIRKONZHAN® SYSTEM			
C99WX9516Z	DISC Ø95mm Sp16mm		BLUE
C99WX9520Z	DISC Ø95mm Sp20mm		BLUE
COMPATIBLE WITH AMANN GIRRBACH® SYSTEM			
C99WX1013A	DISC AMGIR Z-TEC Sp13mm		BLUE
C99WX1020A	DISC AMGIR Z-TEC Sp20mm		BLUE

cera wax

CASTABLE WAX
100% burnT out without residue

Manufacture of wax models for cast metal and pressing-on technique. Excellent milling properties.

IT IS NOT A MEDICAL PRODUCT



COMPATIBLE WITH OPEN SYSTEMS		DENSITY
C99PU9825W	DISC Ø98mm Sp25mm WITH STEP 10mm LD	0,95
C99PU9826W	DISC Ø98mm Sp25mm WITH STEP 10mm HD	1,60

modelcam

Synthetic resin blanks for cad cam model preparation Available in two different densities.

IT IS NOT A MEDICAL PRODUCT



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ZYTTRIA®

AQUA

WATER-BASED LIQUID COLOR FOR ZYTTRIA®

Coloring water-based liquids to dye all the Yttria-stabilized Zirconium Oxide types

MEDICAL PRODUCTS OF CLASS IIA - APPENDIX I X 2,1

FEATURES

- Water-based, acid-free.
- No risk of damaging for heating elements of the sintering oven.
- Not corrosive for metal instruments and surfaces.
- Oil-free.
- Fast and deep infiltration.
- No lighter areas observed under cut of milling pin.
- Dilution in distilled water.

● AQUA-W

The best for dyeing of ZYTTRIA® Z401 White Traslucent

● AQUA-T

The best for dyeing of ZYTTRIA® Z402 Extra-Traslucent

● AQUA-T PLUS

The best for dyeing of ZYTTRIA® Z402 Extra-Traslucent Plus

● AQUA-P

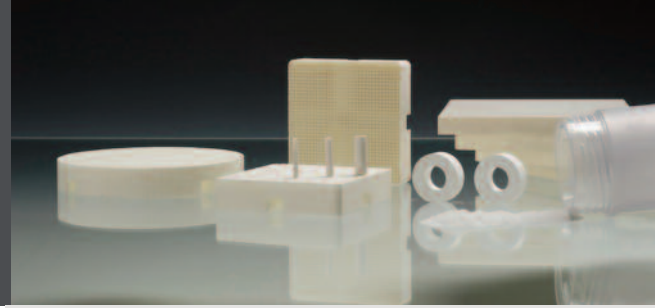
Particularly suitable for coloring *full contour* prostheses made with "brush technique"

	AQUA-W	AQUA-T	AQUA-T PLUS	AQUA-P
Color	Contents 100ml	Contents 100ml	Contents 100ml	Contents 100ml
A1	AQUA1001WA1	AQUA1002TA1	AQUA1003TA1	AQUA1004TA1
A2	AQUA1001WA2	AQUA1002TA2	AQUA1003TA2	AQUA1004TA2
A3	AQUA1001WA3	AQUA1002TA3	AQUA1003TA3	AQUA1004TA3
A3,5	AQUA1001WA35	AQUA1002TA35	AQUA1003TA35	AQUA1004TA35
A4	AQUA1001WA4	AQUA1002TA4	AQUA1003TA4	AQUA1004TA4
B1	AQUA1001WB1	AQUA1002TB1	AQUA1003TB1	AQUA1004TB1
B2	AQUA1001WB2	AQUA1002TB2	AQUA1003TB2	AQUA1004TB2
B3	AQUA1001WB3	AQUA1002TB3	AQUA1003TB3	AQUA1004TB3
B4	AQUA1001WB4	AQUA1002TB4	AQUA1003TB4	AQUA1004TB4
C1	AQUA1001WC1	AQUA1002TC1	AQUA1003TC1	AQUA1004TC1
C2	AQUA1001WC2	AQUA1002TC2	AQUA1003TC2	AQUA1004TC2
C3	AQUA1001WC3	AQUA1002TC3	AQUA1003TC3	AQUA1004TC3
C4	AQUA1001WC4	AQUA1002TC4	AQUA1003TC4	AQUA1004TC4
D2	AQUA1001WD2	AQUA1002TD2	AQUA1003TD2	AQUA1004TD2
D3	AQUA1001WD3	AQUA1002TD3	AQUA1003TD3	AQUA1004TD3
D4	AQUA1001WD4	AQUA1002TD4	AQUA1003TD4	AQUA1004TD4

AQUA-P MARGINAL	
Colore	Contenuto 30ml
M1 for A1/B1	AQUA1005PM1
M2 for A2/A3	AQUA1005PM2
M3 for A3,5/A4	AQUA1005PM3
M4 for B2/B3	AQUA1005PM4
M5 for B4/D3	AQUA1005PM5
M6 for C1/C2	AQUA1005PM6
M7 for C3/C4	AQUA1005PM7
M8 for D2/D4	AQUA1005PM8
AQUA-P OCCLUSAL	
Colore	Contenuto 15ml
BLUE	AQUA1006POB
GREY	AQUA1006POG
AMBER	AQUA1006POO
VIOLET	AQUA1006POV
YELLOW	AQUA1006POY
PINK	AQUA1006POP
BLOCK	AQUA1006PO1

TRANSPARENT

AQUA1000PGL



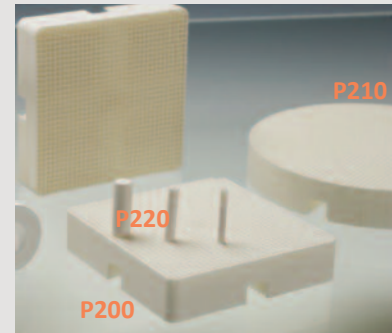
ACCESSORIES FOR CERAMISATION

CERAMIC TRAY

Dental honeycomb firing tray made in special coerdierite pegs for ceramic crown and bridge support systems

P200	SQUARE	55X55 H12,7mm
P210	ROUND	Ø81 H12,7mm
P220	ALUMINA FIRING PEGS SET 9pcs 3pcs Ø2mm+3pcs Ø3mm+3 pcs Ø5mm	

For an optimal positioning of crowns and bridges in the furnace



TEMPERATURE TEST FOR SINTERING KILN

THERMOCHECK RING

A fast and low-cost method to check the kiln temperature

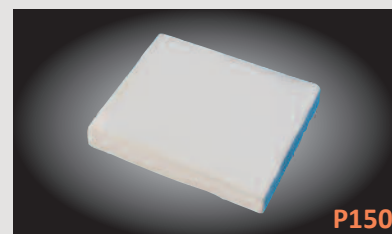
P300	THERMOCHECK RING Ceramic rings - Range 1450°/1750°C
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Kiln temperatures under control!



ACCESSORIES FOR SINTERING

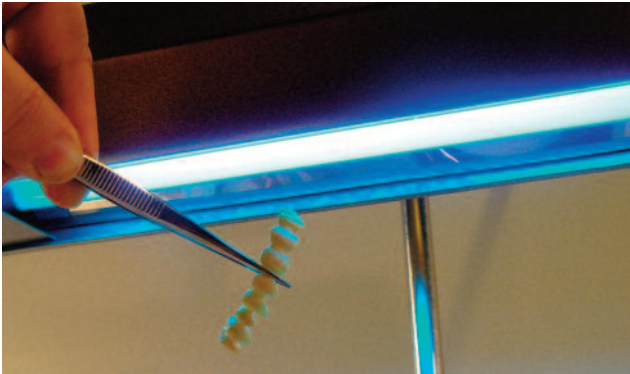
P150	ALUMINA PLATE 85x95x8mm Alumina high purity 99,7%, ground and polished
P303	CERAMIC COVER Ø78
P307	CERAMIC COVER Ø100
P305	MULLITE/ALUMINA CRUCIBLE Ø78 h30mm
P306	MULLITE/ALUMINA CRUCIBLE Ø100 h30mm
P308	MULLITE/ALUMINA CRUCIBLE Ø95 h30mm Used with cover prevent Zirconia from discolouration during the sintering process
P309	CERAMIC PROTECTION COVER WHIT PLATE 87x55x85mm Prevent Zirconia from discolouration during the sintering process
P310	ALUMINA MICROSPHERES FOR SINTERING BED



TO LEVEL TEMPERATURE AROUND THE STRUCTURE

P160	ALUMINA ROUND MUFFLE Ø106 H30mm
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process control



Checking Zirconia prostheses after sintering avoids to proceed in manufacturing in presence of cracks

U.V. LIGHT MICROCHECK with FLUORESCENT LIQUID

FOR A NAKED-EYE IDENTIFICATION OF THE THINNEST MICRO-CRACKS THAT ARE DIFFICULT TO DETECT ALSO BY USING MICROSCOPES

FOUR SIMPLE STEPS TO IDENTIFY MICRO-CRACKS ON ZIRCONIA AND ALLOYS

- 1** Dip the sintered piece in the fluorescent liquid for 4/5 minutes (at least 3 mins.)
- 2** Wash accurately in water
- 3** Dry accurately
- 4** Put the piece under the U.V. lamp. Any micro-cracks or sintering defects will be visible naked-eye

Microcheck kit includes:

- Device with U.V. lamp
- Becker frame
- 2 Beckers
- Pliers
- Penetrant fluorescent liquid

Excellent for Zirconia, MICROCHECK can be also used for metal alloys or any other material with a non-porous surface, in order to see melting defects (shrinking cracks), manufacturing (annealing or soldering defects) or service defects (straining cracks).

The sensitivity of this test depends on the penetrating power of the liquid.

MICROCHECK penetrating liquid used by Concept is water-based and fluorescent with high penetrating power, so it ensures penetration in the thinnest cracks.



www.conceptsrsl.com



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