



Cyrol®

**Ceramic Bearing Rollers
Made in Germany**

가
Ceramic Roller Bearing

Roller
High End

CeramTec GmbH "Cyrol®"

Market

Ceramic Roller

(Quality) 가 (Price Performance), 가
Roller Bearing Linear Guide
(High Performance)
(High Precision) 가



- (, ,) :
- ()
- ()
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Ceramic Roller

- (High Precision)
- (High Speed)
- (High Wear Resistance)
- (Chemical Resistance)
- 가 (High Temperature Resistance)
- (Low Friction)
- (None magnetic)
- 가 (40%)
- (Longer life time)
-
- (High Electrical insulation)
-



(Material requirments)

(Geometry requirements)

Silicon Nitride Bearing Roller
F 2730 / F 2730M

ASTM

Roller

(Lateral Surface)

(Roundness)

(Waviness)

가

CeramTec GmbH class I

Class Ceramic Bearing

Roller Cyrol

Ceramic Bearing

SL900 class I

(ASTM F2730):

, : Ø 12 mm

12 mm

- : < 1.15 µm

- , : < 1.0 µm

- Lot : 2 µm

- Lot : 8 µm

Materials Datasheet

	Units	Silicon Nitride SL900
Material		Si ₃ N ₄
Color		darkgrey-black
General characteristics		
Bulk density	g/cm ³	3.20
Mechanical properties		
Flexural strength 20°C	MPa	>800
Compressive strength	MPa	3000
Fracture toughness K _{IC}	MPa m ^{1/2}	6.0
Young's modulus	GPa	320
Vickers hardness HV 0,5		1500
Weibull modulus		15
Poisson's ratio		0.26
Thermal and electrical properties		
Thermal conductivity 20°C	W/mK	30
Linear thermal expansion coefficient		
20 – 200°C	10 ⁻⁶ K ⁻¹	2.5
20 – 400°C		3.2
20 – 600°C		-
Specific heat c _p 20°C	kJ/kgK	0.8
Resistivity at 20°C	Ωcm	1x10 ¹⁴
Dielectric strength	kV/mm	-
Dielectric constant		8 (1 MHz)
Dielectric loss factor		4x10 ⁻² (1 GHz)
Thermal shock resistance	K	650
Max. usage temperature, no load	°C	1200