

Pump Parts

SEAL RINGS, SHAFTS & PLUNGERS

CUSTOMISED
& STANDARD
DESIGNED
CERAMIC
PUMP PARTS

Sapphire Hard, Long - Lasting

Leakage - Free

Glossy & Satin, Smooth Finish



VERSATILE INDUSTRIAL APPLICATIONS



WATER
PUMPS



SUBMERSIBLE
PUMPS



DISH WASHER
PUMPS



CHEMICAL
PUMPS



HIGH PRESSURE
PUMPS



CUSTOMISED & STANDARD DESIGNED
CERAMIC PUMP PARTS

With the growing demand for ceramic components that can withstand high temperatures, offer excellent wear and corrosion resistance, provide superior sliding properties, maintain high dimensional accuracy, and are suitable for food-contact applications, Jyoti Ceramic Industries has developed a range of advanced ceramic materials through continuous research and development.

Our proprietary formulations include **Duralox®997** (99.7% Alumina oxide), **Duralox® 96W** (96% Alumina oxide – White), **Duralox® 95P** (95% Alumina oxide – Pink), **Duralox® 92W** and **Steatite** ceramics. These high-performance materials are ideal for manufacturing mechanical pump seals, shafts, plungers, and other precision ceramic components used in demanding industrial applications.

Designed to perform under extreme operating conditions and high mechanical stress, our advanced ceramics deliver exceptional process reliability, long service life, and improved cost-effectiveness by reducing maintenance and downtime.

In addition to our standard product range, we offer customized components manufactured according to customer drawings and specifications while meeting technical and commercial requirements.

Our ceramic components are also certified for Food Contact and Drinking Water applications, making them suitable for use in industries where hygiene and safety are essential.

Features

- Passed through stringent Quality Control.
- Flatness ≤ 2 light bands.
- Ra value from 0.1 μm to 0.2 μm .
- Compatible with all chemicals except Hydrofluoric acid.
- Approved by WRAS, UK (BS6920 Test) for use in Food & Water.
- Operates over a wide range of temperatures, pressures and speed.



	Steatite CERAMIC SEAL RINGS	Duralox® 95P (PINK) ALUMINA CERAMIC SEAL RINGS & SHAFTS	Duralox® 92W ALUMINA CERAMIC SEAL RINGS	Duralox® 96W ALUMINA CERAMIC SEAL RINGS, SHAFTS & PLUNGERS	Duralox® 997 ALUMINA CERAMIC SEAL RINGS, SHAFT & PLUNGERS
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CHEMICAL PROPERTIES					
Al ₂ O ₃	6 - 7 %	94 - 96 %	≥ 92 %	96 %	99.7 %
SiO ₂	60 - 65%	2 - 3 %	2 - 4 %	2.5 %	NA
MgO	20 - 25 %	0 - 2 &	2 - 4 %	1.0 %	0.20 %
CaO	NA	NA	0 - 3 %	NA	NA
BaO	2 - 5 %	NA	NA	NA	NA
Cr ₂ O ₃	NA	0 - 1 %	NA	NA	NA
Others	1 - 2 %	0 - 1 %	0 - 1 %	0.5 %	0.10 %
PHYSICAL PROPERTIES					
Colour	Off White	Pink	White	White	Light Cream
Surface Finish	Smooth				
Density	2.70 ± 0.05 g/cm ³	3.80 ± 0.05 g/cm ³	3.67 ± 0.05 g/cm ³	3.85 ± 0.05 g/cm ³	3.90 ± 0.05 g/cm ³
Bulk Density	1.60 ± 0.05 kg/ltr	3.30 ± 0.05 kg/ltr	2.20 ± 0.05 kg/ltr	2.31 ± 0.05 kg/ltr	2.35 ± 0.05 kg/ltr
Porosity	Nil				
Water absorption	0 %				
Hardness on Mohs scale	7	9+	9+	9+	9 +
Hardness on Vickers scale	520 - 550 Hv _s	1425 Hv _s	1250 Hv _s	1525 Hv _s	1650 - 1700 Hv _s
Flexural Strength (3 P.B. @ Room Temp.)	130 Mpa	325 Mpa	400 Mpa	450 Mpa	380 Mpa
Compressive Strength (@ Room Temperature)	850 Mpa	2000 Mpa	2000 Mpa	2200 Mpa	3300 Mpa
Young's Modulus	120 Gpa	300 Gpa	280 Gpa	320 Gpa	350 Gpa
Flatness	≤ 2 light bands				
Ra Value of Lapped	0.10 - 0.20 μm				
Co efficient of Linear Thermal expansion (Room Temp. to 1000 °C)	8.5×10^{-6} / °C	8.5×10^{-6} / °C	7.6×10^{-6} / °C	7.6×10^{-6} / °C	8.4×10^{-6} / °C
Thermal Conductivity (@ Room Temp.)	2.3 W/m K	24 W/m K	23 W/m K	23 W/m K	28 W/m K
Max Temperature of use (No Load Condition)	1050 °C (1922 °F)	1500 °C (2732 °F)	1400 °C (2552 °F)	1550 °C (2822 °F)	1750 °C (3182 °F)

We specialise in manufacturing customised ceramic components as per customer drawings and specifications, with a strong focus on meeting the required technical, quality, and commercial requirements



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