



**Jyalox® 95P**

High Alumina Ceramic

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**Stress relieving interlocking  
insulating beads**

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**Avoid post-welding crack**



## 95% Al<sub>2</sub>O<sub>3</sub> PINK ALUMINA OXIDE CERAMIC STRESS RELIEVING INTERLOCKING BEADS FOR PAD HEATERS

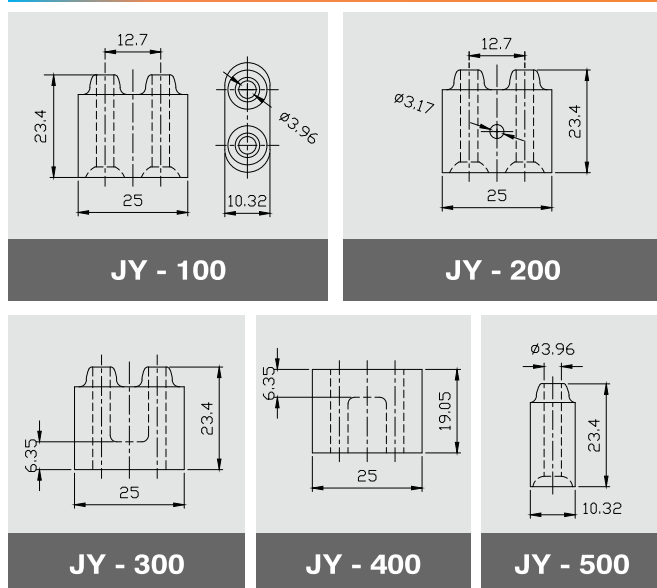
Stress relieving interlocking insulators for pre and post heating of welds. In welding large structures, pipe works and reaction vessels etc. it is common practice to locally employ electrical heating devices to raise the temperature of the metal sections prior to welding and to control the sudden fall in temperature after the area is welded.

Jyalox ceramic has excellent properties such as insulation, thermal shock resistance and heat dissipation which ensures safe operation, quick and proper heating of area at the elevated temperatures.

The heating device ceramic pad heater is in the form of flexible heater pad, constructed with alumina ceramic interlocking beads. The interlocking pattern of ceramic beads allow flexibility to the pad heater, to cover the electrical heating element properly from exposure to the area required to be heated up, such as concave, convex and flat surfaces of vessels, pipes etc. Several pads can be connected together to cover large surface areas of vessels, pipes etc. required for stress relief treatment.

Jyalox ceramic stress relieving bead insulators are mechanically tough, strong and wear resistant to withstand abuse of rough handling of heater pads commonly experienced while in use in heavy construction industry.

### DIMENSIONS OF INSULATORS



All Dimensions are in mm  
Tolerances which are not specified are as per DIN 40680.



Jyalox ceramic bead insulators available for construction of stress relieving flexible electrical heater mats.

### CHEMICAL PROPERTIES

Al <sub>2</sub> O <sub>3</sub>	: 95.0 %
SiO <sub>2</sub>	: 2.0 %
MgO	: 1.0 %
Cr <sub>2</sub> O <sub>3</sub>	: 0.5 %
Others	: 1.5 %

### PHYSICAL PROPERTIES

Colour	: Pink / White
Surface Finish	: Smooth
Density	: 3.80 ±0.05 g/cm <sup>3</sup>
Bulk Density	: 2.25 ±0.05 kg/ltr
Porosity	: Nil
Water absorption	: 0 %
Hardness on Mohs scale	: 9+
Hardness on Vickers scale (Hv <sub>0.05</sub> )	: 1425
Flexural Strength (3 P.B. @ Room Temp.)	: 325 MPa
Compressive Strength (@ Room Temp.)	: 2150 MPa
Young's Modulus	: 310 Gpa
Co efficient of Linear Thermal expansion (@Room Temp.)	: 8.5 x 10 <sup>-6</sup> K <sup>-1</sup>
Thermal Conductivity (@ Room Temp.)	: 23 - 24 W/m K
Max Temperature of use (No Load Condition)	: 1500 °C (2732 °F)
Dielectric strength (@ Room Temp.)	: 15 - 23 kV / mm
Dielectric Constant (@ Room Temp. : 1 MHz)	: 8.7 - 9.0
Dissipation Factor (@ Room Temp. : 1 MHz)	: 0.0003
Volume Resistivity (@ Room Temp.)	: > 10 <sup>14</sup> Ω.cm
Thermal Shock resistance (Down shock VT)	: 160 °C (320 °F)

**JYOTI CERAMIC INDUSTRIES PVT. LTD.**



[www.jyoticeramic.com](http://www.jyoticeramic.com)

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