

## Datasheet

### Fiberglass isolators - model KIP

#### Description

Model KIP isolators are a high-density matrix of compressed molded fiberglass; individually coated with a flexible, moisture impervious elastomeric membrane, and designed to allow air movement in the fiber media. The pumping action of air between fibers provides viscous damping.

The annealed fiberglass of the isolation media is produced by a multiple flame attenuation process which generates fibers with a modulus of elasticity of 7.38 GPa and nominal fiber diameter of less than 6.8 microns. The matrix of glass leaf springs is bonded at all fiber intersections with a water-resistant binder.

Model KIP fiberglass isolators uniquely allow a loading range up to 3,5 MPa, while maintaining a constant natural frequency. The natural frequency of Model KIP fiberglass media is controlled by isolator thickness rather than static deflection as is the case with linear steel springs or bellows.

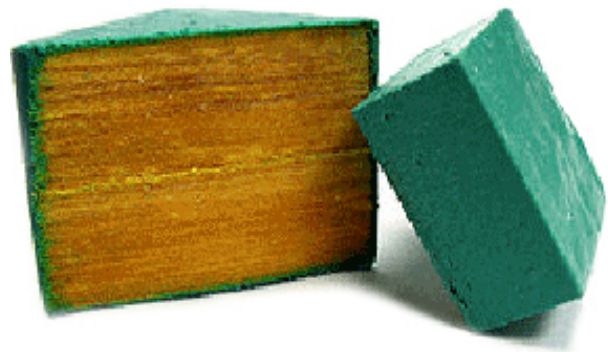
The natural frequency is related to the thickness. For example a 25 mm isolator pad has double the natural frequency of a 100 mm thick isolator pad.

Model KIP fiberglass is an unique kind of structural support. Model KIP fiberglass is non-corrosive, non-combustible, non-absorbent, and resistant to rust, ozone, mildew and fungus. It is vermin proof and will not shrink, swell, or decompose. Isolation characteristics of the media are constant over a temperature range of - 40°C to 121°C.

#### Application

Model KIP fiberglass isolators can be applied in a range where a natural frequency between 5-100 Hz is required. Fiberglass isolators hold a strong dampening effect. This is beneficial whenever predictable dynamic response characteristics are important. Typical noise isolation applications combine Model KIP fiberglass isolators with absorption material.

Model KIP fiberglass isolators are available in a wide range of standard and special mount configurations for various load ranges and natural frequencies.

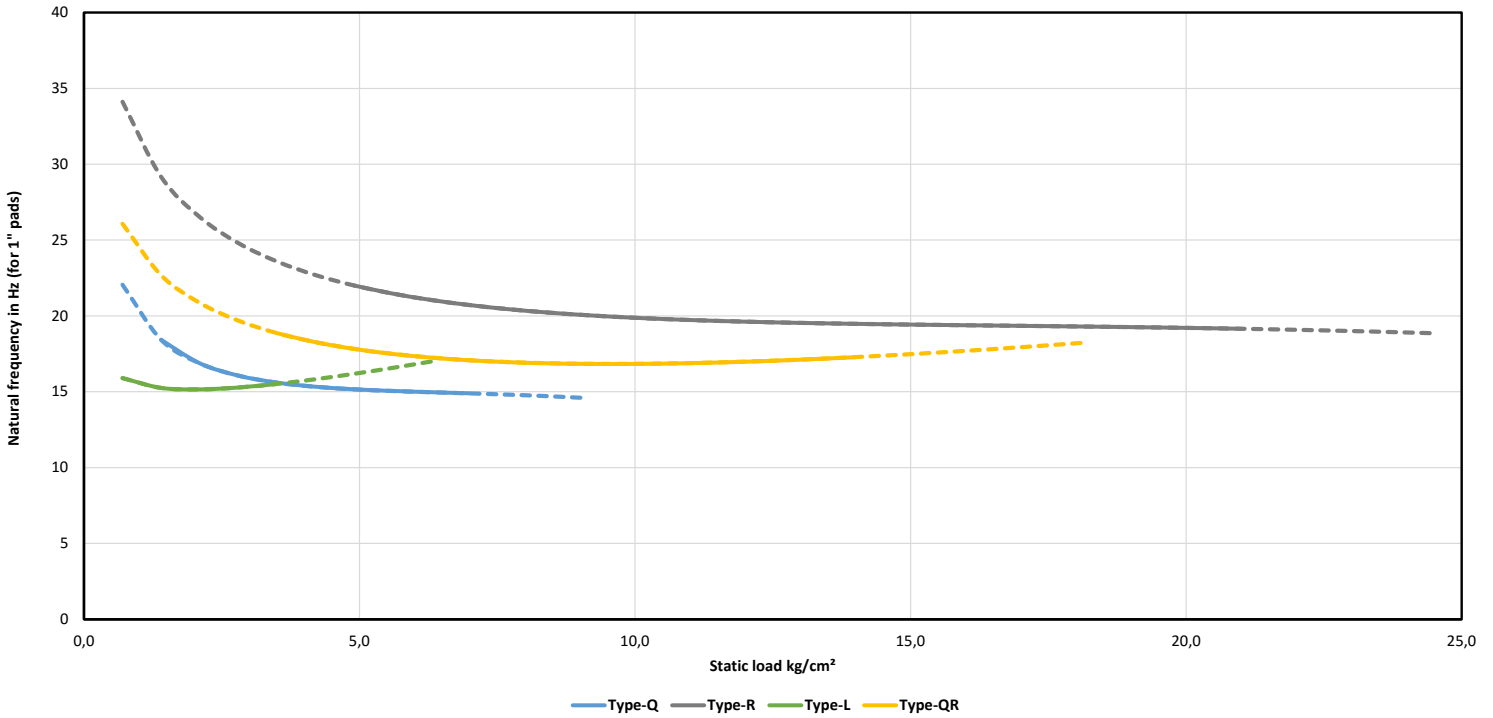


#### Features

- Inorganic fiberglass media
- Flexible elastomeric coating
- Constant natural frequency in wide load range
- Permanent and predictable resiliency
- Predictable dynamic response
- High-energy dissipation
- Controlled viscous damping
- Load capacities 1 PSI to 500 PSI (0.07 to 35 kg per sq. cm)



### NATURAL FREQUENCY VS STATIC LOAD



#### To determine natural frequency for other thickness pads

- For 13 mm pads, multiply 25mm natural frequency by 1.41
- For 38 mm pads, multiply 25mm natural frequency by 0.82
- For 51 mm pads, multiply 25mm natural frequency by 0.71
- For 76 mm pads, multiply 25mm natural frequency by 0.58
- For 102 mm pads, multiply 25mm natural frequency by 0.50

**Note:** Enlarged portion of curves indicate load range of each type or density. This is for steady loads. For impact or shock loads, reduce this loading 50%.

### STATIC DEFLECTION VS STATIC LOAD

