ESLI

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VEL-BOND™

Removable Thermal Attach Gasket

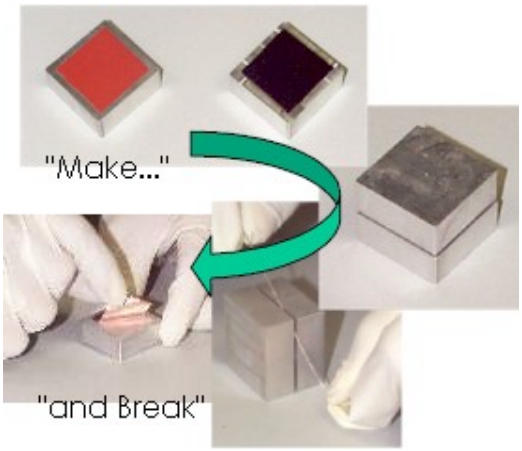
Description: *Vel-Bond* thermal attach gaskets consist of numerous, vertically aligned, 7-μm diameter, high thermal conductivity (high-κ) carbon fibers, that form a bond interface that is structural, thermally conductive, and easy to remove.

New concept: The performance of most thermal interface materials (including greases, gaskets, pads, and tapes) depends on their maintaining close contact with the mating surfaces through mechanical clamping using fasteners or springs. This allows the parts to be easily removed for servicing or replacement, but significantly adds to overall size, weight, and cost of the parts. Alternatively, typical thermal attach adhesives are inexpensive and lightweight, but are difficult to remove without causing damage to the parts or mating surfaces.

Vel-Bond gaskets provide a high conductance thermal interface without the need for mechanical springs or fasteners, and can be easily removed and re-attached without damage to the parts or interface surfaces. *Vel-Bond* gaskets consist of thousands of vertically aligned, high-κ fibers that make contact with interfacing surfaces under low or no pressure, even when surfaces are not parallel, flat, or smooth.

Advantages: *Vel-Bond* gaskets have the following advantages over other thermal interface solutions:

- Requires little or no clamping
- Gasket can be removed and replaced
- Allows for small & lightweight parts
- Low outgassing in vacuum
- Can be used for large or varying gaps
- Accommodates CTE mismatches
- κ values up to 100 W/m-K



Attachment methods:

- Direct attach at ESLI
- Adhesive (e.g. thermal epoxy) or PSA (pressure sensitive adhesive film)

Contact ESLI for assistance in designing the best *Vel-Bond* product for your application.