

"High Temperature Thermal Seals"

Thermal seals (here defined as gap seals) are important to improve heat containment efficiency, reduce hot air leaks in various high temperature applications to conserve energy by reducing heat losses, provide safety from hot air leaks and overall improve process efficiencies.

Darco specialises in providing from stocked materials "High Temperature Thermal Seals" made from high temperature fiberglass (to 600°C) and ceramic fibre textiles, s/s wire reinforced (to 1100°C).

Ropes range from fiberglass round and square ropes (braided and knitted types) in various densities and diameters (4 to 50 mm) mainly for door seals in ovens, wood fired heaters, industrial flanges, dampers etc. Ceramic fibre used for higher than 600°C to 1100°C applications.

Tadpole tapes – custom made fabric bulb (desired temperature rating, diam. and density) with cover and tails of desired thickness and length. Subject to minimum orders for local fabrication at relatively short notice 2 to 4 weeks typically. Cheaper imports are subject to higher MOQ and longer lead time.

Woven Tapes – Most comply 3 mm thick woven fiberglass in various widths 25 mm to 125 mm. We also stock 1.5 and 6 mm thicknesses in some sizes. Though mainly used for insulation wraps they are also used as thermal seals as gaskets or thermal draft strips in some conveyor systems with hotter and colder zones. Ladder or bold hole tapes are better suited for gaskets where fixing with bolts though plain tapes can be substituted if needed.

Knitted Tapes – We stock knitted laminated tapes 25 mm x 6 mm and 32 mm x 9 mm which are preferred over woven tapes for boiler door seal as knitted tapes advantages include being more resistant to high air velocity abrasion, more spongy for better seal, more flexible and stretchy for easier fitting.

Ceramic paper - 1, 2, 3 and 6 mm stocked mostly 610 mm wide and some sizes 1220 mm wide. Rated to 1260 °C is cut into gaskets for higher temperature thermal seals - Typically used in flanges and furnace door seals.

Fabric Expansion Joints – These are thermal seals which range from simple single fabric or complex composite of fabrics and insulation layers between fabrics and/or separate insulation bolster. Used mainly in high temperature air flow ducting from commercial air conditioning (AS1530.3 fire rated for compliance to building codes) to various industrial processing fabric expansion joints to cope with various temperatures, abrasive, corrosive applications. These are all custom engineered and locally fabricated solutions.

Other – Whatever your thermal (gap) seal requirements, please contact our Darco sales team (or James Dar for complex application) to assist with suitable solutions.

