



DURBIN

INDUSTRIAL VALVE, INC.

Flexible Industrial Insulation for High-Temperature Applications

Maximum Use Temperature 1200°F (650°C)



www.durbinvalve.com



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Durbin Insulation is made from Pyrogel XT which is the most effective high- temperature insulation material in the industrial market. The Pyrogel XT product is composed from Silica solids called aerogels. Aerogels have been in existence for more than 80 years. The silica solids of aerogels are poor conductors that consist of very small three-dimensional intertwined clusters. The clusters occupy only 3% of the volume with the remaining 97% of volume composed of air in extremely small nanopores. The air in the aerogel has little room to move which inhibits both conventional convection and gas-phase conduction. These aerogel characteristics make it the world's lowest density solid & therefore the most effective thermal insulator. These outstanding qualities have been studied for decades but only recently developed into a technology that is an economically viable insulation solution. This technological advancement resulted in the Pyrogel XT product that we use today to make Durbin Insulation.

Service Temperature: -40°F (-40°C) to 1200°F (650°C)

Features & Benefits:

Space Saving; Durbin Insulation required thicknesses are 50%-80% less than other insulation materials. Most high temperature insulation materials (ceramic fiber, mineral wool, etc.) have to be applied in extremely large thicknesses to achieve the same results as a single layer installation of Pyrogel XT.

Thermal Performance; Durbin Insulation Materials have the lowest K-Values of any industrial insulation products (see diagram). Hydrophobic; Durbin Insulation is extremely hydrophobic (repels water) through the entire matrix of the material (not just on the surface) and provides excellent resistance to moisture. This product actually drives moisture out of the wet inner layers, resulting in improved thermal performance, better process controls, and reduced operating costs.

Corrosion resistant; Other non-hydrophobic insulation products eventually become wet. Moisture that is trapped under insulation can cause Corrosion Under Insulation (CUI), and potentially destroy the substrate.

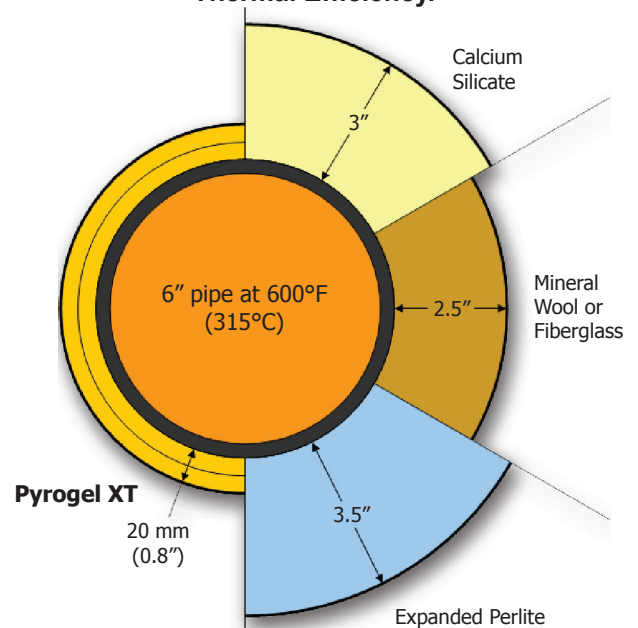
Durable; Durbin Insulation is a flexible material that deforms under compression with excellent bounce-back properties. It can resist high impact loads (hundreds of psi) with no damage and no compromise in performance, unlike rigid insulation that is friable and susceptible to cracking. Durbin Insulation also meets all specifications for stress crack corrosion of stainless steel.

Fire Resistant: The Pyrogel XT product offers excellent resistance to flame spread and smoke emission. The product protects piping and equipment longer in a fire, providing additional time to respond to emergencies before experiencing permanent damage.

Lightweight; Durbin Insulation is lighter than other insulation materials on an installed basis. This enables it to be safely handled on the job site. Due to its lightweight it also reduces overall loading of the pipe and equipment support structure.

Reusable; Durbin Insulation is removable. It fastens with Velcro and drawstrings which makes removal & reapplication quick & simple.

All Four Designs Provide Same Level of Thermal Efficiency.



OSHA Regulation Compliant; Durbin Insulation decreases the outer surface temperature, helping to protect your personnel.

OSHA does consider exposed heated surfaces, if there is a potential for injury, to be a hazard and will issue citations if employees can come into contact with such surfaces. While there are not any OSHA standards, except those that are applicable only to specific industries, which address exposed heated surfaces, there are several OSHA general standards which address such hazards. Those standards are:



1910.261(k)(11):

Steam and hot-water pipes. All exposed steam and hot-water pipes within 7 feet of the floor or working platform or within 15 inches measured horizontally from stairways, ramps, or fixed ladders shall be covered with an insulating material, or guarded in such manner as to prevent contact.

1910.262(c)(9):

Steam pipes. All pipes carrying steam or hot water for process or servicing machinery, when exposed to contact and located within seven feet of the floor or working platform shall be covered with a heat-insulating material, or otherwise properly guarded.

Environmentally Friendly; Insulating high temperature pipes is the easiest way to conserve energy. Made from Silica (essentially sand), aerogels pose no chemical threat to the environment. Durbin Insulation contains no respirable fibers and does not require blowing agents. It is free of CFC & HCFC. Durbin Insulation can be safely disposed of if needed. Because the installed volume is significantly less, there is less waste going to landfills.

Safe; Amorphous Silicas have been studied by OSHA, EPA, & the OECD concluding: Demonstrated lack of toxicity, mutagenicity. Not expected to pose a carcinogenic risk. Silica is inert when ingested and unlikely to be absorbed through the skin. No concerns for human health.

Cost Effective; Insulating high temperature equipment is an investment that will pay for itself in a short period of time. With Durbin Insulation you will use less insulation to achieve lower K ratings, therefore reducing overall costs. Durbin Insulation will prolong the life of your equipment, decreasing overhead costs. Durbin Insulation will last longer than other insulations products reducing your long term investment. The lightweight nature of this product also decreases freight charges. Durbin Insulation will protect your employees from costly injuries, and protect your facility from expensive OSHA fines. Because Durbin Insulation is reusable, it pays for itself the first time that you need to remove it to perform maintenance on the valves, fittings and/or piping.



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