



Refrex® Heatshields

High temperature resistant flexible heatshields for surface protection of furnace internals

General

Based on her positive experiences with several “high temperature” Refrex®-applications in various industries, Insulcon’s Wearflex® division has developed Refrex® heatshields which reflect around 60% of the radiation heat. This prevent overheating of tube skin surfaces of radiant coils and reformer-tubes and to reduce surface temperature on other furnace internals like: tubesheets, manifolds tube-hangers, thermocouple parts etc.

Since 1990 Insulcon’s Wearflex® division started to develop a heatshield protection system for furnace internals. Radiant bottom and/or side wall burners radiate heat to the skin surface of furnace internals. As a result coke forming inside radiant coils and reformer tubes increases, and the ageing of the applicated metals is accelerated.

The high velocity of the hot gas stream causes an erosive effect. Refrex® heatshields should therefore not only be high temperature resistant but also wear resistant.

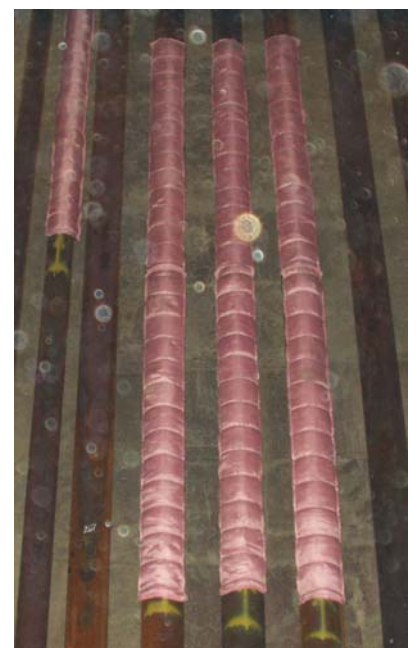
Based on Insulcon’s worldwide experience with high temperature woven fabrics, the Refrex® woven fabric type was selected to suite specific requirements.

To assure the reliability at extreme temperature, all other materials used in the heatshields such as sewing yarn, sleeving and ceramic buttons are 100% resistant against the specified flue-gas temperature (max. 1350°C). By means of the Refrex® tie-cords, sleeveings and ceramic buttons / buttonholes there is a fixation achieved which can be easily and fixed again, even after years of process-firing.

In this way protected furnace internals can be inspected without renewing or damaging the heatshields.

Refrex® Heatshields

- Prevent ageing acceleration of the tube skin surface of furnace internals
- Decreases coke-forming in radiant coils and reformer tubes
- Can easily be untied and fixed again, even after years of process firing
- Are easy to install
- Are lightweight
- Can be delivered shortly



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Refrex® 1200 and 1400 fabrics

Refrex® fabric is woven out of threads made out of different rovings. The rovings are assembled out of a specified number of endless Refrex® filaments with a fiber-diameter of 10-12 micron. No binders are added only a "sizing", a temporarily coating which protects the Refrex® fibers during the weave process. Refrex® 1200 and 1400 filaments and textiles are non-oxidizing, non hygroscopic, chemically resistant, have a low conductivity and a good abrasion resistance.

If required, special designs will be made to meet the requirements of our clients. Insulcon's Wearflex® division takes care of development, engineering, production and sales for all kinds of 'flexible refractory' applications. If you would like to have supervision and/or inspection at your site as well, we will gladly be at your service. If necessary we can supply within **24-hours, 7 days a week.**



For more information about other Refrex® products, please see our other leaflets. You can contact our specialists as well. They will gladly look at the possibilities in your company and will make you an offer without any engagement.

For more detailed information about these products, please do not hesitate to contact one of our specialists.

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