



How to Prolong Filter Bag Life with Opti-Coat™

PROBLEM

A fabric filter bag is not intended to be a **filter**, but rather a **porous surface** on which to develop a dust cake. The developed **dust cake** becomes the actual **filter**.

When a baghouse has had a new fabric filter bag changeout and is placed back into service, airflow through the baghouse is at its greatest volume and velocity. The initial onrush of dust and airflow through the baghouse and new filter bags are at such volumes and velocity that the dust particulate can **penetrate** the fabric filter surfaces instead of forming a dust cake **on** the surfaces, and, thereby, partially “blind” the new fabric filters. This partial “blinding” resists airflow, slowing down the velocity and allowing the dust to begin developing a dust cake on the fabric surfaces. But, by the time the fabric is starting to develop the proper dust cake, partial blinding of the fabric surfaces has decreased the **potential** airflow through the baghouse and, in most cases, remains in this condition until a changeout of new fabric filters occurs.

Another problem that affects new fabric filter bags is an early onrush of particulate that is “sticky” or “tacky” that can cling to new fabric filters and not release. This also creates partial blinding of the fabric filter. Additionally, this material develops a “sticky” base, which, in turn, adheres to ongoing particulate collection. The result can develop serious blinding problems and unacceptable reductions of airflow capacity.

Chemical attack can also be harmful to new fabric filters. The chemistry of a process airflow can mix with moisture, elevated temperature, or incompatible chemical content in the fabric filter and develop fabric filter deterioration.

SOLUTION

There are a limited number of ways to correct all three of these conditions with one solution. The best and least expensive way to handle all

three of these damaging conditions is to use a chemically inert additive, applied to the new fabric filter bags **prior** to the baghouse being placed back “on-line” or back in service. Specially formulated, extremely lightweight (in density), chemically inert powders can be introduced into the INLET duct as the baghouse is brought back into service.

This powder is extremely light in weight and will not penetrate the fabric filter surface, even with higher velocities and consequently does not “blind” the fabric surface. Therefore, the powder develops a preliminary dust cake for the onrush of particulate to build upon.

Powders of this type are nonabsorbent and therefore do not adhere to “sticky” or “tacky” particulate. As these types of materials enter the baghouse they collect on the inert powders, separating the fabric filter surface from the “sticky”, “tacky” materials.

Chemically inert powders like this can be used on an ongoing basis of application for chemical attack protection. By pre-coating this powder onto the new fabric filters, a protection coat is developed between the filter surfaces and the chemistry of the airflow. By using this powder daily or weekly, it can neutralize further potential for chemical attack.

RESULT

Menardi supplies **Opti-Coat™**. This unique and specially formulated inert powder is extremely light. When used as a fabric filter pre-coat, it can protect against moisture, particulate bleed through, hydrocarbon carry over, bag blinding, oil, tacky (sticky), or viscous contamination. It is easy to use, much more effective than lime injection, and less expensive than lime for the same results, with a few benefits that even lime doesn't offer.

Opti-Coat is a Menardi conditioning agent developed by Menardi to correct problems in baghouses when and where applicable.