



## Dura-Life™ Filter Bags Conquer Soy Protein with Muscle

**INDUSTRY:** Grain – soy protein conveyor.

**PROBLEM:** Oily & agglomerative dust caused short filter life & high emissions.

**SOLUTION:** Donaldson Torit Dura-Life filter bags last 3X longer *and* exceed EPA emission standards.



*The Dura-Life filter bags in this Donaldson Torit RF Baghouse collector provide longer life and lower emissions at this Midwestern soybean processing plant.*

**A** Midwestern soybean processing plant uses a Donaldson® Torit® RF baghouse dust collector on a pneumatic receiver that regularly processes between 3 and 4 tons per hour of soy protein dust.

Soy protein tends to be oily and agglomerative, so it often builds up and blinds off conventional polyester filter bags early. The maintenance team had to replace their conventional polyester filter bags every 6 months. Now, after installing Donaldson Torit Dura-Life™ filter bags, they find filters last about 18 months—3X longer!

One of the company's biggest concerns was their ability to meet EPA emissions standards of 0.05 gr/dscf\*. After testing Dura-Life, the company was pleased to discover that emissions are well below the EPA requirements — just 0.0028 gr/dscf! The maintenance supervisor reports that visual inspections of the ducts also appear much cleaner with Dura-Life, and  $\Delta P$  measured 2-4" lower than with non-Dura-Life bags.

Longer filter life AND lower emissions? Now that's tackling protein dust with muscle! 🍌

### Project Statistics

<b>Dust/Contaminant</b>	Soy Protein
<b>Application</b>	Pneumatic conveying
<b>Dust Collector</b>	Donaldson Torit RF Baghouse, with 324 filter bags, Model 324RFW10
<b>Air Volume</b>	35,000 cfm
<b>Dust Loading</b>	5-8 grains/dscf
<b>Air-to-Media Ratio</b>	7:1
<b>Hours of Operation</b>	4-5 days/week, 24/hrs/day
<b>Polyester Bag Life</b>	6 months @ 6.5" – 8.5" $\Delta P$
<b>Dura-Life Filter Bag Life</b>	1½ years @ 4.5" $\Delta P$
<b>Emission Test Results</b>	0.0028 gr/dscf (well below EPA 0.05 gr/dscf requirement)

\* Grains/dscf = Grains per dry standard cubic foot. There are 7,000 grains in one pound.

Dura-Life bags are made with Durapex® media manufactured by Polymer Group, Inc.

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