PELLETIZED ACTIVATED CARBON

DARCO® H2S LP

Unique Lignite-Based Activated Carbon: 4 mm Extruded Pellet

BENEFITS

Cost-Effective: Due to its high capacity, DARCO H2S LP reduces replacement frequency and overall cost.

Operational Efficiency: Lower pressure drop means reduced energy requirements and a smaller blower size, which reduces operational cost.

Environmental Safety: Converts H_2S to elemental sulfur, a more stable and less hazardous form.

Versatile Applications: Ideal for sewage treatment plants, pumping stations, and other odor control systems.

Perfect for High Humidity Streams: Performs well in high humidity environments.

FEATURES

BABA Mined and Manufactured: Produced from high-quality U.S. mined coal, ensuring consistent quality and reliable supply.

High H_2S Loading Capacity: Has an H_2S loading of 50% or greater (50g of H_2S removed for every 100g of DARCO H2S LP).

Catalytic and Easy to Remove: Converts H_2S to elemental sulfur and stores it within its pores, not just on the surface. This reduces bricking and allows easy removal from odor control systems.

Unique Pore Structure: Engineered with twice the mesopore and macropore volume of traditional odor control carbons. Enables rapid diffusion of large odor molecules and efficient adsorption.

Low Dust and Pellet Form: Manufactured as 4 mm pellets, reducing dust and pressure drop in systems.

SPECIFICATIONS

Hydrogen Sulfide Capacity	> 0.2 g/ml	ASTM D6646
Ball-Pan Hardness	> 85	ASTM D3802
Moisture, as Packed	5% Maximum	ASTM D2867

GENERAL CHARACTERISTICS

Density, Tamped Apparent	30-36 lbs/ft^3 0.52-0.58 g/cc	ASTM D2854
Estimated Field Loading	50%	ASTM D6646
Diameter	4 mm	

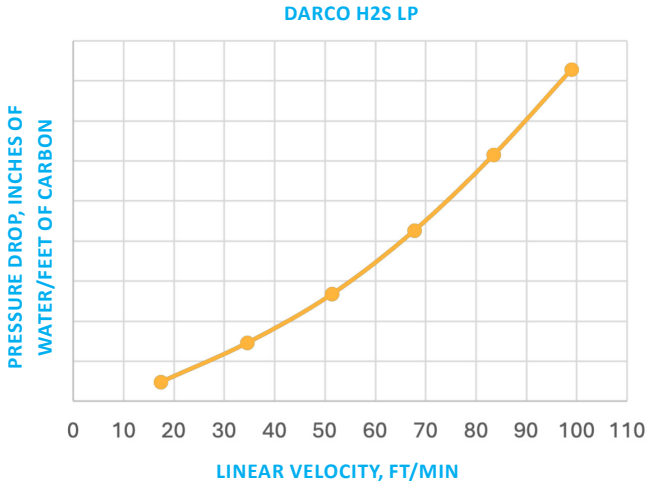
LOADING OF H_2S ON DARCO H2S LP

The ASTM D6646 H_2S capacity test does not accurately predict real-world performance in odor control applications. In practice, DARCO H_2S LP has demonstrated greater than 50% loading (grams of H_2S removed per gram of activated carbon) — a level substantially higher than other treated carbons.

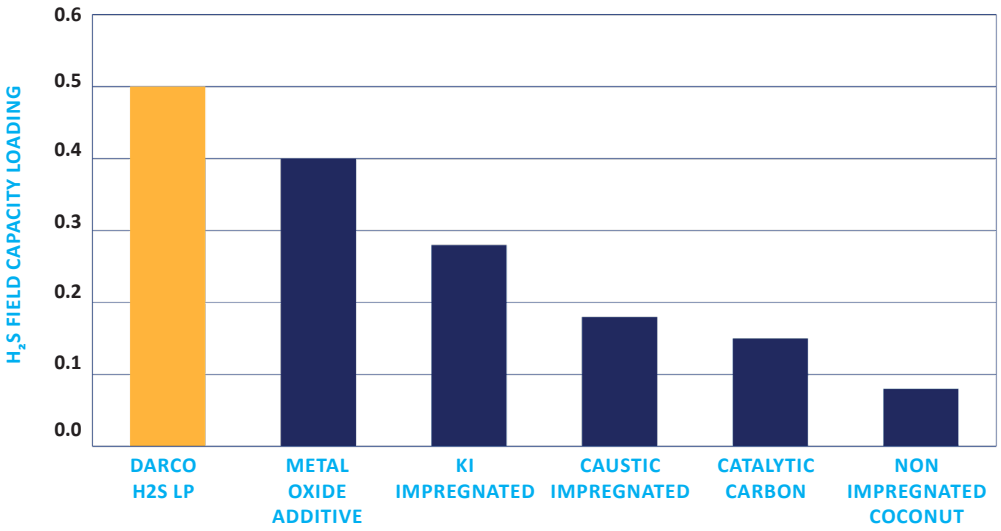
ASTM D6646 measures loading capacity using 10,000 ppm H_2S gas. However, most wastewater treatment facilities encounter foul air streams with less than 100 ppm H_2S. As a result, the test conditions do not reflect typical odor control environments. While ASTM D6646 reports a 0.2 capacity result for DARCO H_2S LP, field data shows the product achieves significantly higher loadings under real-world conditions.

Some products use metal oxide additives to achieve a minimum H_2S capacity of 0.3 g/cm³. While effective at boosting removal capacity, these additives can cause issues such as crystal formation in downstream piping and "bricking" within the carbon bed. In contrast, DARCO H_2S LP removes H_2S by converting sulfide to elemental sulfur, which deposits safely within the carbon pores. Additionally, its 4 mm pellet form delivers a lower pressure drop compared to granular products.

PRESSURE DROP CURVE



FIELD CAPACITY LOADING



ABOUT NORIT

NORIT is among the world's largest, most experienced producers of activated carbon, with a history of more than 100 years of innovation in manufacturing and product development. Our products are used to remove pollutants, contaminants, and/or other impurities from water, air, food and beverages, pharmaceutical products, and other liquids and gases in an efficient and cost-effective manner.

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