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Absorbent Desiccants

Van Air Systems is the leading manufacturer of tabletted desiccants for drying compressed air and gas.

Dry-O-Lite[®]

SP

HPD

10BF

Cost Saving Solutions for Compressed Air Systems

Dry-O-Lite[®]

Dry -O-Lite[®] is the registered trade name of the chemical drying agent specifically formulated for Van Air Freedom Series dryers. Dry-O-Lite is a hard tablet of hygroscopic materials that attract and hold moisture. The surface of the tablet slowly dissolves and forms a solution which drops from the surface (deliquesces). The material continues to form this solution until the desiccant is entirely consumed.

Materials in the compound are not toxic or potentially toxic and are completely soluble. When used in a properly sized Freedom Series dryer, Dry-O-Lite will remove sufficient moisture vapor to establish an approximate 55% RH in the air line.

Dew Point Performance

Physical Properties

Color and form	White tablet
Size	3/4" diam x 5/8" height
Bulk density	72± 3 lbs/ft ³
Average break pressure	60-100 lbs.
Average PH of solution	6.5 to 7.5
Critical RH	55%

Inlet Temperature (saturated)	Outlet Dew Point	Dew Point Depression
100°F	80°F	20°F
90°F	70°F	20°F
80°F	60°F	20°F
70°F	51°F	19°F
60°F	42°F	18°F
50°F	32°F	18°F

SP

SP is the trade name of the chemical drying agent formulated primarily for the dehydration of natural gas. To be used where the operating temperature is at or below 80°F, it produces lower dew points for both natural gas and compressed air applications.

SP is a hard tablet of hygroscopic material that will attract and hold moisture. The surface of the tablet will slowly dissolve and form a solution which drops from the surface. For applications where the temperature conditions are above 80°F, crystals may form in the drain solution, causing a caking problem. (A prebed of ceramic bead support # 33-0281 is recommended to minimize crystal formations in natural gas applications.)

When used in a properly sized Freedom Series dryer, SP will remove sufficient moisture vapor to establish an approximate 33% RH in the air line.

Dew Point Performance

Physical Properties

Color and form	White tablet
Size	1" diam x 3/4" height
Bulk density	55± 3 lbs/ft ³
Average break pressure	60-100 lbs.
Average PH of solution	6.5 to 7.5
Critical RH	33%

Inlet Temperature (saturated)	Outlet Dew Point	Dew Point Depression
80°F	50°F	30°F
70°F	43°F	27°F
60°F	36°F	24°F
55°F	32°F	23°F
45°F	25°F	20°F

HPD

HPD is recommended for sequential tower systems where the operating temperature is at or below 80°F. HPD is a cost-effective solution for applications requiring extremely dry air. As HPD absorbs moisture, it slowly dissolves. During this process, the tablets maintain their shape to prevent caking, channeling or plugging. Once in a mist form, the liquid continues to absorb additional moisture.

HPD is a hard tablet of hygroscopic material that will attract and hold moisture. The surface of the tablet will slowly dissolve and form a solution which drops from the surface. As with SP, hydrates may form in the solution when operating temperatures are above 80°F in natural gas applications. (A prebed of ceramic bead # 33-0281 is recommended to minimize hydrate formations.)

When used in a properly sized Freedom Series dryer, HPD will remove sufficient moisture vapor to establish an approximate 23% RH in the air line.

Physical Properties

Color and form	White tablet
Size	1" diam x 3/4" height
Bulk density	55± 3 lbs/ft ³
Average break pressure	60-100 lbs.
Average PH of solution	6.5 to 7.5
Critical RH	23%

Dew Point Performance

Inlet Temperature (saturated)	Outlet Dew Point	Dew Point Depression
80°F	40°F	40°F
70°F	33°F	37°F
60°F	26°F	34°F
55°F	22°F	33°F
45°F	15°F	30°F

10 BF

10BF desiccant is the most powerful desiccant developed by Van Air Systems for use in single tower dryers. Very low dew point requirements in compressed air dehydration can usually be met using 10BF.

10BF is a hard tablet of hygroscopic material that will trap and hold moisture. The surface of the tablet will slowly dissolve and form a solution which drops from the surface. The solution is not saturated as it drops from the surface of the tablet. Using a prebed with this desiccant allows this less than saturated solution to pick up additional moisture and reduce desiccant consumption.

When used in a properly sized Freedom Series dryer, 10BF will remove sufficient moisture to establish an approximate 13% RH in the air line.

Physical Properties

Color and form	White tablet
Size	1" diam x 3/4" height
Bulk density	60± 3 lbs/ft ³
Average break pressure	100-120 lbs.
Average PH of solution	6.5 to 7
Critical RH	13%

Dew Point Performance

Inlet Temperature (saturated)	Outlet Dew Point	Dew Point Depression
100°F	37°F	63°F
90°F	30°F	60°F
80°F	23°F	57°F
70°F	16°F	54°F
60°F	9°F	51°F
50°F	2°F	48°F
40°F	-5°F	45°F



The World Leader In Absorbent Desiccant Technology
As the original manufacturer of absorbent desiccant, Van Air Systems has invested 60 years in perfecting our desiccant formulas to provide customers with dependable and cost effective solutions.



Freedom Series Dryers
The Van Air process dries the air as it flows through the vessel which is filled with one of the Van Air special drying desiccants. The dehydrator operates automatically. There are no moving parts and no external power source is required.



With an on-site, dedicated facility for desiccant development and manufacturing, you get the best desiccant on the market today.

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