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Bry-Air[®]
Spearheading Innovation



Mr. Deepak Pahwa addressing future managers on Invention and Innovation

Addressing a two day (May 5th-6th 2011) international conference at Amity Manesar on “Enhancing Organizational Growth through Innovation and Creativity – Issues, Opportunities and Challenges”, Mr. Deepak Pahwa, Group Chairman, Pahwa Enterprises and Managing Director, Bry-Air (Asia) Pvt. Ltd. said that while the current business environment posed tremendous challenges because of its highly fickle nature; it was possible to tackle it through ingenuity – invention and creativity.

The conference was attended predominantly by the student community- the future managers. Eminent academicians and corporates were also in attendance.

An Eventful Year Ahead !!

We have an eventful year ahead. We shall be participating in events big and small, conventions, seminars and exhibitions. We hereby invite your participation . . .



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Notes on some Recent Application

Chips and Namkeens



Crispy, crunchy snacks delight the palate, soggy ones don't taste half as good. The trick therefore is to maintain the crispiness. However, post manufacturing, snack foods like "kurkure/Patato Chips" tend to regain moisture if conditions are less than optimum. Microbial growth could also ensue in the long run. Dehumidified conditions in the storage area ensure that chips and other such snacks retain their crunch.

Biscuits



Sweet, savory, plain or with a filling in between, a biscuit is hard to resist. But it can be enjoyed in full only if it is firm and fresh. Biscuits/ Cookies being highly hygroscopic gain moisture during storage before being packed. This reduces the shelf life of the product considerably. Relative humidity in the storage area (temporary storage prior to packaging) should be maintained at 30.5% at 28°C (82°F) to overcome the problem of moisture pickup or moisture regain.

Welding Electrodes



Generally, it is assumed that quality of the welding depends on the skill of the welder or the quality of the welding consumable, i.e. the electrode. More often than not another factor, moisture, plays an important role in the "poor" quality of welding. If not properly stored most of the coating materials can absorb water. This could result in coating deteriorating and subsequent hydrogen pick-up in the weld bead.

Tyre Creel Room



In the Creel Room, various wires of fabric and steel pass to the winding machine from large spools. Presence of high humidity in this room leads to rusting of steel wires, leading to a large rejection rate and loss of strength. Rusting prevents proper bonding between the steel and rubber. Relative Humidity in the Creel Room must be maintained between 20±5% at 25±5°C.

Our Newsletters . . .



Introducing
AirFacts...

... the
newsletter
of the
Air and Gas

Purification Division

Air and Gas Purification / Gas Phase Filtration unit now has a newsletter devoted exclusively to it . . . AirFacts. The inaugural issue was released in August. While Dryfacts initially had a page devoted entirely to the problem of gaseous filtration, we felt it was not enough, considering the enormous opportunities and challenges of Air and Gas Purification, hence AirFacts i.e. facts about Air.

WHEN MOISTURE IS TORTURE !

In this column, we will share with you regularly our experience in major application areas where usage of dehumidification is both extensive and essential.

The importance of moisture control while manufacturing and packaging confectionery



All sweet things should come to an sticky end . . . ideally in the mouth. Moisture however plays spoilsport midway ruining the texture and making confectionery items soggy and visually unappealing. All this arises, because confectionery items - chocolates, hard candies, chewing gums, bubble gums, sweets, toffees, etc., are rich in sugar and hence are hygroscopic. When the humidity is high, confectionery items regain moisture and become sticky and prone to mould formation.

Problem

Some typical problems of moisture include bloom in chocolates. Bloom is nothing but fat and sugar crystals that rises to the surface if the chocolate absorbs moisture during packaging.



Moisture also inhibits the natural flow, as material sticks to the high speed processing and packaging machinery and also to the wrapping material. The processing thus slows down moisture creates a problem of hygiene, resulting in loss of production as well as loss in the final product quality.

Uncontrolled humidity/moisture during the manufacturing and coating process of confectionery (chocolates, candies, sweet snacks) is responsible for

- Change in the structure/dimension of the film core interface.
- Grainy and irregular coating.
- Increase in residual moisture content and improper adhesion i.e. degradation of coating quality in the presence of moisture.
- Sugar bloom and change in flavor.



Temperature and Humidity requirements.

Item	Temperature In Celsius	Humidity
Hard Candy Packaging	21-24	35.00%
Caramel Manufacturing / Packaging	21-27	30-35 %
Hard Candy Storage (Packaged)	10-21	40 %
Biscuit / Cookie Storage	18-24	25-35
Candy Tablet Manufacturing / Storage	18	40
Chocolate Coating	18-24	45-50
Chocolate Storage	-18-(-1)	40
Choc. Covered Peanuts	18-(-20)	40-45
Confectionery - Chocolate Covering	21-32	45-50
Confectionery (Mogul Cooling)	16-18	20-30
Chocolate Manufacturing	32	13

The **Bry-Air**® Solution

The solution lies in maintaining required stringent conditions of temperature and humidity in the processing, packaging and storage areas with dry air. Dehumidifiers that lower the moisture content of the surrounding air maintaining RH as low as 1% at a constant level regardless of the ambient conditions during the production, storage and packing help to improve the quality and retain the freshness of the chocolates and other confectionery longer.

DRY AIR helps retain original
freshness and **favour**
of packaged foods



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VISION • EDUCATION • ENVIRONMENT

Bry-Air Supports, School for the Underprivileged

Bry-Air Pathshala is a learning center for underprivileged children. This center is run in partnership with Literacy India, a leading NGO in the field of education. Located in Dharam Colony, Gurgaon, the center is fully funded by Bry-Air and provides non-formal education to children of the area. The children mainly belong to the migrant community and are generally rag pickers or are working for daily wages in dhabas, etc., or are just loitering around. Bry-Air Pathshala will provide a stimulating, healthy and secure learning environment, free of cost, which will facilitate holistic child development.

By creating a primary school environment and introducing non school-going children to learning, the center hopes to act as a stepping-stone to a better life. The Center has a computer lab, a library; learning aids such as books, stationery, etc., are provided to the children as well. Remedial classes for school-going children who are weak in studies and vocational classes for women such as tailoring & stitching are also held at the Pathshala.

Speaking during the inauguration, Mr. Deepak Pahwa, Chairman Pahwa Enterprises and Managing Director Bry-Air Asia said "this is a small contribution towards providing opportunities to children who do not have access to any educational facility. Children are our tomorrow and this is a small step for creating a brighter future for them."



Inauguration of the Bry-Air Pathshala, a learning center for underprivileged children. This center is run in partnership with Literacy India.



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