

Production lines

There are two lines, one line is older and the other is new. Deckle of machine is 4400 mm, the capacity is 320000 ton per year, and speed of machine is 450 m/min.



Modern Paper Modern Paper Kaghaz

Sanate Sabz.cox



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Director Manager's Remarks

I support this task with full faith and firm determination and expect all colleagues that do their best to come off company goals and meet above needs. To reach the above goals, the senior manager of the company evaluates the effectiveness and efficiency of the above activities by continuous monitoring and is committed to respect this policy and revision it in regular intervals.

Almas Sabz Industrial Group Director Manager: Jalil Salari





HIS-TORY.

Almas Sabz(GDIG), is a printing and packing company, it begins to work from 1999 with the aim of producing paper and cardboard. For this reason it is introduced as packing industries in 2003.

This group enact constitution the second company in 2008 under the title of Kaghaz Kare Almas Sabz Company (Paper Work Green Diamond, PWGD), with the aim of producing liner, test liner and fluting paper. With considering this point that in 2013, in Iran the packaging companies had a high demand for high quality Kraft paper and big amount of this kind of Paper was imported. For this reason, company's experienced managers have decided to produce Kraft paper with modern technology in our beloved country.





Company Introduction:

Modern Kaghaz Sanate Sabz company (Modern paper green industry, MPGI.Co.) is the subdivision of Almase Sabz industrial group (Green Diamond industrial group, GDIG). This company with a capacity of 120.000 tons a year (100,000 tons Kraft paper & 20,000 tons fluting paper) is one of the biggest paper mill in Iran. This company is Private Corporation.



Products

Kraft line

Kraft paper is strong and relatively coarse. It has high tensile strength. The grammage is normally from 40 - 200 gr/m2.

This kind of paper has a large amount of long fiber pulp. Long fiber pulp made from softwood by Kraft process. The long fiber provides the paper its strength.

Corrugated paper (Fluting)

Often this kind of paper use for making corrugated board.

The corrugated medium is often 0.13 kg/m2 basis weight in the US; in UK, a 90 gr/m2 fluting paper is common. At the single – facer, it is heated, moistened, and formed into a fluted pattern on geared wheels. This is joined to a flat linerboard with a starch based adhesive to from single face board.

At the double – backer, a second flat liner board is adhered to the other side of the fluted medium to form single wall corrugated board. Liner boards are test liners (recycled paper) or Kraft paper board (of various grades). The liner may be bleached white, mottled white, colored, or preprinted.











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Paper making process

Pulping A

Waste paper enters pulper machine and is transformed into waste pulp. Then, it is mixed with processed fibers, some chemicals and additives in order to gain uniform and better quality. Pulp is a lignocellulose fibrous material prepared by chemically or mechanically separating cellulose fibers from wood, fiber craps or waste papers,

The pulp that use in modern paper company are unbleached and long fiber from soft wood whereas imported to Iran from Russia, Finland and other countries which produce this kind of pulp. Some part of pulp in modern paper company is recycled pulp.

Recycled pulp has been processed by physicals recycled paper

Recycled pulp is used as raw material in paper making. Paper forming in paper making, a dilute suspension of fibers in water (which is consist of virgin pulp and recycled paper and some chemical additive is drained through a screen. Water is removed from this mat of fibers by pressing and drying to make paper. The machine that use in modern paper company is Fourdrinier machine.

Pulp Cleaning

Upon preparation, pulp is sent to cleaners for screening and removal of both fine and coarse impurities.

Paper Formation

The raw material fibers and chemicals are pumped to the head box of paper machine. By the time the thin mat of fibers reaches the end of the wire section, it becomes a sheet of paper, although it's very moist and of little strength. Paper formation is done by means of Fourdrinier and vat methods.







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Paper drying

Moist paper passes to the press section. This section consists of a number of heavy cylinders through which the moist paper passes to lose water. Then, it passes through steam heated cylinders (dryer) which have a temperature of slightly over 180 C in order to get dried completely.

Slitting and wrapping

The paper comes off the machine ready for reeling up into large reels. Large reels are then cut or slit into smaller ones according to customer requirement. Finally, it is wrapped properly to be sent to the customer.

Quality Control Laboratory

Our instruments which are of world – class quality, are regularly visited and calibrated by well – known companies in order to ensure high precision. Together with the crush tester, a fluting instrument is used to produce fluted samples. This instrument is the same as its industrial type and can make B and C flutes.

Tests on Input Material

Purity Testing: Measures the purity of chemicals and additives by means of chemical and physical methods.

Water Analysis: Measures the pH, hardness and dissolved solids of the water which is consumed both in boilers and production process.

Tests on Pulp

PH Testing: It's measured by digital pH-meter for process control purposes.

Freeness Test: The freeness of pulp is the rate at which a dilute suspension of pulp may be drained. The freeness, or drainage rate, has been shown to be related to the surface conditions and swelling of the fibers.

Tests (Final Product) on Paper

Paper is weighted by standardized digital weight.

Water Absorption (COBB):

Based on TAPPI Standard, the quantity of water absorbed in the Unit of area over 60 to 120 seconds is measured as absorption rate and is expressed in g/m 2. It is an important index for printing and gluing properties of paper.

Bursting Strength Test:

Bursting strength indicates how much pressure paper can tolerate before rupture. According to TAPPI Standard, bursting strength is measured as the maximum hydrostatic pressure required to rupture the sample by constantly increasing the pressure applied through a rubber diaphragm on 1.20 - inch diameter (30.5 mm) sample.

Corrugating Medium Test (CMT):

CMT measures the crushing resistance of a laboratory fluted strip of corrugating medium, and provides a means of estimating the potential flat crush resistance of a corrugated board. It is an important index for quality carton boxes.

Ring Crush Test (RCT):

The ring crush test is similar to the strip crush test in that the strength of liner or fluting is measured in the machine and cross directions. It is an important test for papers used in carton boxes.

Concora Crush Test (CCT):

This test evaluates the ability of corrugated material to contribute to the compression strength of a corrugated box by measuring the edgewise compression strength of a laboratory - fluted strip of corrugated material in a direction parallel to the fluted tips.



Tensile Strength Test:

The tensile force required to produce a rupture in a strip of paper is expressed in KN/m.

Tensile strength is indicative of fiber strength, fiber bonding and fiber length. Tensile strength can be used as a potential indicator of resistance to web breaking during printing or converting. It is of great importance to papers with industrial application.

Tear Strength Test:

The tear strength measures the ability of the sheet to resist the propagation of a tear. This test is performed using Elmendorf instrument.







