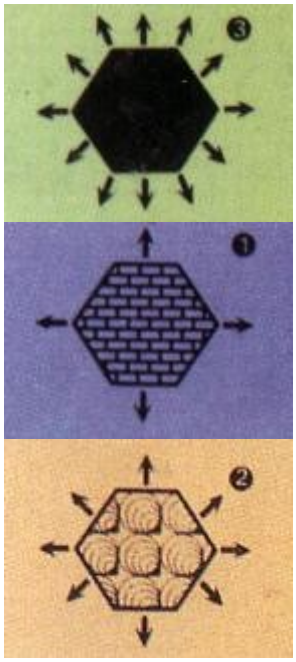
ABOUT SOCCER BALL:



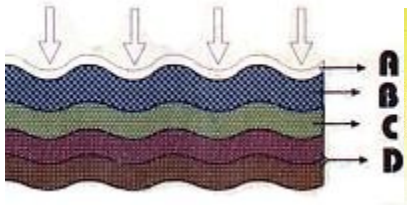
By using this system, during the play ball can be passed to any angle and angle and speed remains same when kicked off.

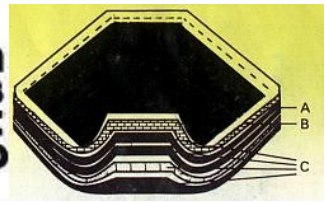
Stitching is completely coated with a transparent chemical to make the ball 100% water proof.

Shape and roundness of ball is guaranteed.

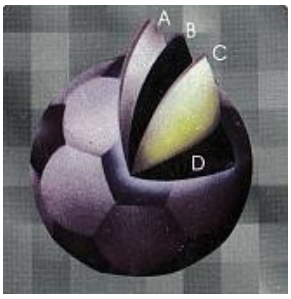
To increase the flexibility of a ball, rubber padding is used in the inner construction of a ball.

The diagram shows the inner construction of a ball. Special chemicals like impanel, desmodrum, imprafix are used to increase the quality of the ball





AIR JET SYSTEM



A. Recent development latest polyurethane synthetic leather, this leather is prepared with the combination of chemicals like " Impranil ", " Desmodrum ", " Imprafix ", to make, combination of these chemicals gives a strength and good look to the material.

B. It is the inner part of synthetic leather, which provides maximum flexibility to the ball.

C. It has a high quality cotton layer pasted over with natural / pure latex, strengthen the cover of ball.

D. These two players of " High Quality " imported polyester gives permanent support to the ball and provides longer life multi layers of cotton and polyester provides strength to the ball, walls so when the inflated bladders put pressure on, the ball does not go out of shape.

DOUBLE KNOT SYSTEM

Our ball panels are stitched under double knot system.
Why Double Knot System ?

The stitches remains intact even under huge pressure during the game, shape / roundness of ball remains same.

double knot system does not allow water or any liquid to penetrate into the ball. As the system provides roundness and due to roundness perfect bounce and ball
goes in right direction, Where the player wanted it to be.

TYPES OF SOCCER BALLS:

There are many types of soccer balls, footballs or Futbols. Soccer balls can be categorized by the following types:

- Professional ball.
- Match Ball.
- Training Ball.
- Indoor Ball.
- Fustal Ball.

Professional Match Soccer Balls

- Developed with top professional clubs to maximize players natural abilities and skills.
- Approved for use at the highest professional and international levels.
- Pure performance, exact specifications, great accuracy, speed and control.
- Designed for all natural and artificial turf surfaces and all climates.
- At least five layers are used in the construction of the ball and they use the best materials.

Professional match balls are the most expensive type of ball since they use the best materials and adhere to strict design and testing parameters. Ball trajectory, shape, balance, bounce, water absorption and velocity are all strictly controlled.

Match Soccer Balls

- High performance range of balls for all playing surfaces.
- Designed to suit all levels of play and all age groups.
- Guaranteed to conform to official size, weight, and shape regulations.
- Materials developed for their performance and reliability

Match balls are designed for use in soccer matches. They cost more than practice balls and less than the internationally approved soccer balls (that makes sense).

Recreational /Practice/Training /Camp Soccer Balls

- Tough and highly durable balls for extended use.
- Specific materials for use on all playing surfaces.
- Used by coaches for all age groups and all standards

Usually constructed with four or less layers and use a lower quality outer cover such as PVC. Many practice or camp balls made out of molded material (not stitched together but molded together panels) have been designed to withstand rough surfaces such as concrete or asphalt.

Practice or camp balls are the least expensive balls when compared with match type soccer balls.

See our high quality, low priced **PRO** camp or recreational ball.

Promotional Balls

These balls are usually made to promote a name brand, organization or event. Some promotional soccer balls are small in size (size one or two) and not intended for practice or match use.

Indoor Soccer Balls

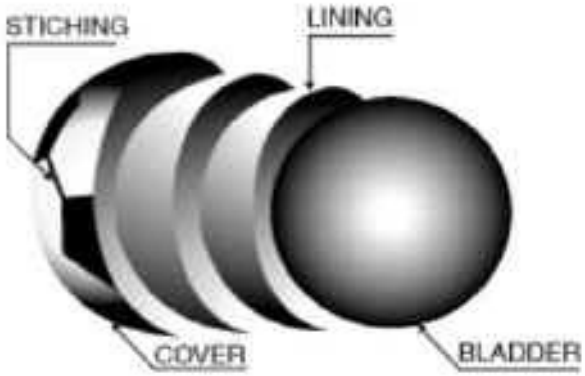
Many indoor soccer balls consist of a felt type outer covering that is similar to the material used on tennis balls. They have the same size configurations as the outdoor soccer balls.

Futsal Soccer Balls

The main difference between a Futsal ball and a typical soccer ball, is that the bladder is filled with foam. That makes the ball heavier and have less bounce for use on the hard playing surface.

BALL CONSTRUCTION:

The four main components of a soccer ball are the cover, the stitching, the lining and the bladder. Understanding these components and their options will help you in choosing the perfect ball to meet your playing and quality needs.



Soccer Balls and Materials used in Production

- Surface, Casing or Cover
- Stitching
- Internal Linings (Polyester or Cotton)
- Bladder (Latex or Butyl)

Covers

The surface of soccer balls or coverings are made up from synthetic leather and not full grain leather (as used in the past) because leather has a tendency to absorb water causing the ball to become very heavy. Synthetic leather is typically made from PU (polyurethane)
and PVC (poly vinyl chloride).
There are many variations of synthetic leather used in the construction of soccer balls. They range from AI-2000, Japanese Teijin Cordley, Microfiber, English Porvair, Korean Ducksung, Leather Art Pakistan Synthetic Leather, and PVC (poly vinyl chloride). Best soccer balls used in competition and by professionals are produced by using AI-2000, Cordley, Ducksung, Mircofiber or other types of PU synthetic leather. Promotional soccer balls or practice balls are usually constructed with Polyvinyl Chloride(PVC) or rubber (molded or stitched) covers.

Some indoor soccer ball covers are made with a felt material similar to what is used on a tennis ball.

Panels

- The number of panels -- the different segments that make up the outside covering of the ball -- varies for each design.
- A 32-panel ball is the most common and is the type used in most professional matches. The soccer ball is essentially a Buckminster Ball consisting of 20 hexagonal (six sided) and 12 pentagonal (five sided) surfaces. Also known as a truncated icosahedron except that it is more spherical, because the panels bulge due to the pressure of the air inside.

When they are sewn together and inflated they make a near perfect sphere.

- Other traditional designs are 18 and 26- , 24 panel 42 panel , constructions, used in various professional leagues, including Major League Soccer (until 2002), Scottish and English leagues.
- Fewer panels generally means the ball can be curved more when kicked because of less stability to the cover.

Panels can be either stitched, glued or thermally molded together:

- **Stitched**
  - The highest quality balls are stitched with a polyester or similar thread. 5-ply twisted polyester cord is the material of choice in stitching together a soccer ball. Hand sewn balls have tighter and stronger seams. Kevlar® reinforced polyester stitching is also used on some balls.
  - High-end balls are hand-stitched, while most mid-priced balls are machine-stitched.
- Glued
  - Lower-end, practice balls generally have the panels glued together onto the lining.
  - These offer a harder feel and are generally less expensive than stitched balls.
- Thermally Molded - The new World Cup 2006 Teamgeist Ball and the Roteiro ball have panels that are thermally molded together.

Linings

Material thickness plays a vital part in the quality of hand-sewn soccer balls. Multiple layers of lining are placed between the cover and the bladder. These layers are composed of polyester and/or cotton bonded (laminated) together to give the ball strength, structure and bounce. Professional soccer balls usually have four or more layers of lining. Promotional or practice balls are often constructed with less layers of lining. The lining helps the ball retain it's shape and bounce over the life of the ball.

Many soccer balls include a foam layer for added cushioning and ball control.

Bladders

The bladder in a soccer ball holds the air. Bladders are usually made from latex or butyl. Compared to latex bladders, butyl bladders retain air for longer periods of time. Latex bladders tend to provide better surface tension. However; butyl bladders offer the excellent combination of contact quality and air retention. Futsal ball bladders are filled with foam to limit the bouncing capability of the ball since they are used on a hard flooring.

Most balls use butyl **valves** for air retention, with higher end balls using a silicone-treated valve for superior performance. Silicone treated valves are used on some balls for smooth insertion of the inflating needle and added protection from air loss. When you first receive a ball, a good idea is to put a few drops of silicon oil in the valve. This will provide easier needle insertion and better air retention.

Natural Latex Rubber bladders offer the softest feel and response, but do not provide the best air retention. Micro pores slowly let air escape. Balls with natural rubber bladders need to be re-inflated (at least once a week) more often than balls with butyl bladders (stay properly inflated for weeks at a time). Some balls use **carbon-latex bladders** in which the carbon powder helps to close many of the micro pores. Latex bladders are used in balls because of the following characteristics:

A- It gives proper bounce.
B- It feels softer.
C- Same angle re-bounce characteristics.

Butyl bladders offer an excellent combination of feel and air retention and can be found in most middle to upper priced balls.

PU - Some manufacturers use bladders made from polyurethane.

How Most Hand Stitched Soccer Ball Parts are Put Together

The first stage is to roll out the material to be used for the outing casing of the ball. The casing is usually made from several layers of synthetic foam-filled leaves (panels), which are glued (laminated) together to produce a tough, smooth exterior.

The leaves are cut into the exact amount needed to make one ball. Then the panels are pre-printed with any brand names and graphics before being cut. All logos would be printed at this point in the process. Printing is typically accomplished by silk-screening onto the cover material. After printing, the material may have another layer of clear urethane (or another proprietary material) applied over the printing for protection.

The number of individual panels required is then cut out, and holes are pre-punched in preparation for stitching. The stitching is performed by turning the ball inside out, so none of the stitches show on the outside. A different type of needle is used to complete the stitching of each panel, which effectively makes the final knot 'disappear'.

The stitched ball is then reversed, the bladder inserted and inflated. One stitecher can usually do four balls in one day.

BALL CARE:

As with any product that you buy, taking good care of your soccer ball will prolong it's life.

There is nothing complicated about taking care of a soccer ball. Just use common sense.

Do not stand or sit on your soccer balls. Do not kick your **good match** soccer balls excessively hard against a wall. They can become warped and your ball will wobble when kicked.

Buy a good quality ball using Soccer Ball World as your buying guide and take good care of it. Your soccer balls will then have a long life.

Cleaning

Remove excessive dirt from the ball after use. Use a damp cloth to wipe the ball clean. If needed, use some mild soap or some type of synthetic leather cleaner to remove excessive dirt or stains from the ball. Be careful when using detergents to clean the ball. Never use harsh detergents. Outer coverings and stitching on some balls may be adversely affected by concentrated cleaners.

Reframe from excessively spraying soccer balls with high pressure water spay. Water may penetrate into the ball.

Do not play with a wet ball during freezing temperatures. The water on the ball could freeze and cause injuries.

Playing Surface

Play on turf, grass or smooth surfaces. Rough surfaces such as gravel, asphalt or concrete can be very abusive to a typical soccer ball. Premature excessive wear and cuts on the outer cover will occur due to

abrasion when the ball bounces or skips across rough surfaces. For rough or abrasive surface use, we recommend you use our **Long Life** soccer ball.

Use Proper Air Pressure

Do not over or under pressurize a ball. Use the manufactures recommended air pressure that is printed on most balls. Most soccer balls have a pressure rating of 6 to 8 lbs. or 0.6 or 0.8 BAR. It is recommended that you use a pressure gauge to measure the exact amount of pressure in a ball after inflating and before use.

BAR or PSI or LBS?

Some soccer balls have recommended pressure values indicated in BAR while others have the values indicated in PSI or LBS. To convert the pressure values, use the following formulas:

To convert BAR (KGS) to PSI (Lbs.):

Answer = 14.5037 X The amount of BAR(KGS)

For example: A soccer ball has a recommended pressure of 0.6 BAR labeled on it. To convert BAR in Pounds Per Square Inch (PSI), multiply 0.6 times 14.5037. The answer is 8.7 PSI or Lbs.

To convert PSI (Lbs.) to BAR(KGS):

Answer = .068948 X The amount of PSI(Lbs.)

For example: A soccer ball has a recommended pressure of 7.9 Lbs. (PSI) labeled on it. To convert Pounds Per Square Inch (PSI) into BAR, multiply 7.9 times .068948. The answer is 0.545 BAR.

Inflating a Soccer Ball

Soccer balls lose air pressure over time. Sometimes over a few days (soccer balls that use butyl bladders keep air pressure longer than balls that use latex bladders). Be sure to check the pressure frequently to make sure the ball is properly inflated. Therefore, invest in a good ball pump, have a supply of inflation needles and use a low pressure gauge to measure for proper inflation.

Before you first inflate a soccer ball, place a couple drops of silicone oil **or** silicone lubricant spray **or** glycerin oil into the valve. You can purchase one of the oils or spray at your local hardware store. Using one of the lubricants will improve the life of the valve and lubricate the valve for easy insertion of the inflation needle.

Always moisten the inflation needle before you insert it into the valve. Preferably, use some silicon oil to moisten the needle. However; some people use spit...yuk, but that is not recommended.

Manufacturers recommend that you reduce the air pressure in your **match balls** after a game to reduce the amount of stress on the ball seams or stitching. Be sure to inflate the ball back to proper pressure before the match