

FACT SHEET DISPOSABLE BABY DIAPERS

The Products and Their Development

Disposable baby diapers are designed to absorb and retain an infant's urine and faeces while keeping the skin dry and healthy and to be easily and hygienically disposed of in household solid waste. Diapers are available in a wide range of sizes designed to fit all ages of children.

Disposable baby diapers were first introduced in the early 1960s in the form of products based on cellulose wadding with plastic backing and nonwoven top sheets. Disposable baby diapers became more widespread during the mid-1980s and by 1990 disposable diapers were used in more than 90% of families in most European countries.

The introduction in 1989 of the first disposable training pants and of diaper pants in 1991 created products to assist in the transition from the child's diapering period to successful toilet training.

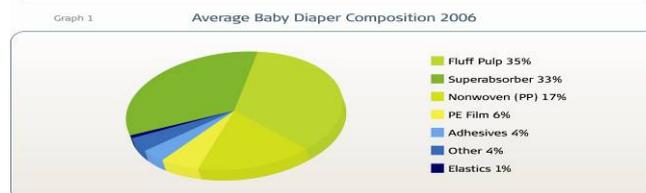
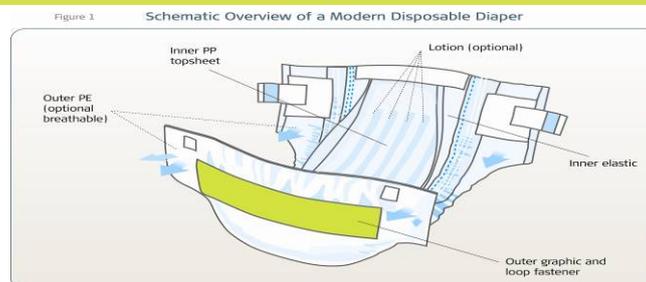
Benefits to society:

Disposable baby diapers have become indispensable for nearly all families across Europe. The convenience of disposable diapers is a huge benefit in today's busy lifestyles where time is a precious asset. They lessen the burden of domestic chores, freeing parents to spend more time on other activities.

Disposable baby diapers are:

- **Healthy:** their usage results in reduced skin rash incidence, skin irritation and infections;
- **Comfortable:** their softness, lightness and the breathable nature of the materials used provide for superior comfort for the baby;
- **Convenient:** they are easy to use, faster to put on and remove;
- **Hygienic:** by preventing leakage of faeces and urine, they reduce risks of transmission of infectious diseases for babies and their carers

What Are They Made Of



The main components of a typical diaper are wood pulp from sustainable forestry, superabsorbent material and nonwoven materials based on plastics.

How They Are Made

There are three basic processes in the manufacture of baby diapers. They are:

- Fiberisation of the fluff pulp, addition of superabsorbent polymer and absorbent pad formation;
- Lamination with films, nonwoven materials and elastic elements;
- Shaping, cutting, folding and packaging.

While these 3 basic processes have remained constant over the years, the way they are done has changed with the introduction of new technologies and more sophisticated designs. Major strides have been made in increasing production line efficiency and reducing manufacturing waste.

Did You Know?

- In a survey carried out by the Louis Harris Research organisation in 1997, respondents with children identified disposable diapers as the second greatest improvement in contemporary life (the first being the automatic washing machine).
- A baby will typically be toilet trained at about 30 months of age. Industry averages indicate that on average over these 30 months the baby will use 4.5 diapers per day. Therefore in its life a typical child will use about 4100 disposable diapers.
- The environmental impact of using disposable diapers on a child has been scientifically measured and compares to the impact of driving a car between 2100-3500 kilometres (1300 and 2200 miles).
- In a recent survey, women indicated they would rather give up air travel, a second car, a tumble drier and their microwave before giving up disposable diapers.

The Industry

The members of EDANA who manufacture absorbent hygiene products and wet wipes employ some 100,000 people in Europe, making a substantial contribution to the economic wellbeing of families and communities in the countries of Europe. In 2006 some 20,000 of those were directly employed in the manufacture of absorbent hygiene products in Europe. This is, matched by a similar number upstream within raw materials supplier industries; not to mention those employed downstream in logistics and commercial operations.

The industry invests widely in its European product development and manufacturing facilities with over 50 facilities spread across some 20 countries in the region.

Safety Assurance

Disposable baby diapers sold in the EU must comply with the European General Product Safety Directive and where they contain lotions and fragrances, must also comply with the requirements of the European Cosmetics Directive.

Our industry does more than simply comply with the legal framework to ensure that our products are safe. We conduct our own safety evaluation programmes and as individual companies we continuously monitor the market, our products in use and any other concerns consumers may have in using them.

Comparative Environmental Impacts and Consumer Preferences

In 2005 the UK Environment Agency undertook a life cycle analysis comparing the environmental impacts of disposable diapers with reusable washable cloth diapers. The results of that scientific study concluded that there was little or no difference in the environmental impacts of either system.

Recent experiments to encourage parents to use cloth diapers have largely been unsuccessful. A project in Belgium where mothers in a maternity ward were invited to participate in a pilot programme using reusable diapers for a period of 13 weeks did not achieve the take up hoped for:

- 70 percent of the 436 women invited to participate in either phase of the pilot declined and only 23 women, (five percent) of the total number of women invited to participate in the pilot, said they intended to continue using reusable diapers at the end of the 13 weeks.
- Leakage, user unfriendliness, extra work due to washing and drying and cost were the main reasons why people who participated in the trial project did not want to continue using reusable diapers after they left the hospital.

Sustainability through Innovation

Since the widespread introduction of the disposable baby diaper in the early 1980's, the sustainability of the products has improved significantly, in large part due to the availability of high performance superabsorbent polymers at an acceptable cost. This material and other innovations in the production process have led to diapers that are lighter and thinner, whilst improving functionality. Refinements in forestry management systems and the introduction of both Chlorine Free pulp bleaching systems have also contributed to these improvements.

Overall this continual development has enabled the total weight of a baby diaper to be reduced by in excess of 40 percent over the last two decades.

Product Disposal

Disposable baby diapers are safe and compatible with prevailing waste disposal and treatment methods.

Waste from absorbent hygiene products, which includes baby diapers, represents around 2 percent of municipal solid waste which in turn represents between 6 and 15 percent of all waste. Absorbent hygiene products account for less than 0.5 percent of total solid waste in Europe.

Summary

Since their introduction modern single-use diaper products have continuously improved, becoming lighter, more compact, more absorbent and easier to use. Today it is estimated that more than 95 percent of all parents use them – and it is generally recognized that modern disposable diapers are healthier for the infant's skin. Their softness, lightness and breathable nature provides superior comfort for the baby; they are easy to put on and remove, and are more convenient than reusable diapers as they eliminate the need for both constant laundering at very high temperatures to remove germs, and drying.

Industry is committed to provide baby diapers that give better skin care, a better performance, with reduced resource use and reduced environmental impact, all at an affordable price.