

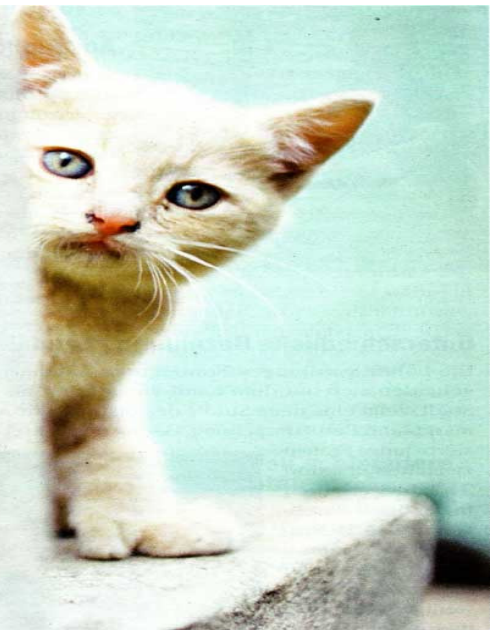
TEST Katzenstreu January 2010 (pages 116-120)

For the Cat!

Öko – test put 20 brands under the microscope. Many products came out well but there were, however, differences in the absorbency.

The following article has been translated into English from German. OKO-TEST magazine who publish the magazine and article are one of the largest read publications in Europe on consumer products.

Midas Products (UK) Ltd organized and commissioned the translation of the report into English. The translation is in full without any amendments or changes to the original printed article published in German. Prices have not been included, because they are based on the euro's and we are unable to give an accurate comparison in £ sterling at the time of the article being translated into English.



Midas Products (UK) Ltd are the sole distributing and selling agents for the brand **Bio-Catolet** cat litter in the United Kingdom. Bio-Catolet cat litter is manufactured by Catolet GmbH

Here she is the top mother: Simone Faust. The tall grown up woman with shoulder-length hair is in charge of the cattery in the largest animal shelter in Frankfurt. She arranges the work schedules for the cat team and sees to the buying of the food, cat litter and other things that the cats need and she does it willingly. About 100 cats live with her at any one time and whoever wants to have one of them has to go to the industrial area of Frankfurt-Fechenheim, past a well-known Techno night club and one of the largest meat factories with its base in Germany, whose entrance is decorated with happy looking pigs and cows. On the wall there are pictures of Neptune, Lisa and Joki – these cats are looking for 'someone to love them' - a good home. Healthy cats that can live in a flat are very sought after. Our problem children are difficult animals with health problems.

For these cats we look for new homes via our website; Faust explains. Today is visiting day on the ward – which is where the animals go to after they arrive at the home after being in quarantine. They leave the home again to go to their

new home. Today a cat lives in every sixth household. In all there are 8.2 million cats that are kept as pets. So that the owner and their cat feel good in 2008 the owners spent a total of 218 million euros on cat litter, which makes it the biggest item

in the 906 million euro market of cat accessories apart from convenience food. In the animal sanctuary in Frankfurt the cat toilets are cleaned and re-filled daily. Everything here is spotless. Not a crumb lies on the ground between the many scratching posts, the staircase-shaped climbing frames covered with cuddly blankets and the cat toilets. The cat sanctuary in Frankfurt prefers cat litter made from bentonite, grey-brown clay granules, animal keeper Faust explains. However cat litter is not only available in bentonite. For our test we also bought in products made of calcium silicate hydrate, wood fibres and recycled cellulose pulp. We did not only test all 20 brands for any suspicious materials we put them to the test as well.

Our recommendations

- A good cat litter should be absorbent, hold in any odour and create little or no dust. Set up your cat toilet where it is easily accessible to your cat but not near his or her food bowls
- Once or twice daily remove any clumps or used areas as well as any faeces and wipe round the edge of the cat toilet with a damp cloth. At least once a month rinse out the entire toilet with hot water.
- Any lumps of cat litter and hard faeces go into the land-fill bin. Depending on the policy of your Local Council, entire trays of waste litter may either be deposited in the green bin, be put on the compost heap or put in the land-fill bin

Test results

- More than one in two cat litters came out in our test with very good or good. The worst products came out as satisfactory or poor because they failed when put to the test.

3 makes contain fibres that can get into the lungs – but the fibres are far less dangerous than asbestos

- In 3 cat litters the laboratory that did the test found isolated strands of fibre that are harmful to the lungs. Such fibres are suspected of being carcinogenic. In the products affected by this it is because of the mineral Bentonite. In a damp environment, that is when it reaches the airway, it swells up and then loses its dangerous fibrous shape. In comparison to asbestos, which is extremely resistant in the body and has a so-called Bio-persistence, Bentonite is less bio-persistent. That is why we have given it only one minus mark.

- In 3 makes that contain Bentonite the laboratory analysis raised concern of the dubious heavy metals Nickel, Thallium and/or cobalt. As these can also find their way into the body, when the dust is breathed in, we have acknowledged that and have deducted a mark.

Cat litters that are made of recycled cellulose and plant fibres absorb moisture best of all

- Cat litter must be absorbent. On average cat litter absorbs 180% water to weight. Especially absorbent were **Bio Catolet** Gentle Hygiene Cat Litter, Cat's Best Friend and Dehner Zoo. Especially bad were Cats and Hygiene Plus, Trixie Fresh 'n Easy and The Monthly Litter and Ja! Cat Litter. These litters' absorbency rates were less than 100% of the weight, far below the average of the makes in the test. In addition, with the lump litter products we checked and examined how much litter is used to bind a certain amount of water. The bigger the lumps are the more lumps will have to be removed

and so more litter will have to be added to the tray in order to keep the recommended amount of litter, as recommended by the manufacturer, in the tray. Here, too, there were considerable differences. With Premiere Excellent Premium Cat Litter only 125 millimetres of litter is needed for 250 millimetre of water. With 'Dein Bestes Litter' and Gimpet Biokat's litter 450 millimetres of material is used.

5 brands made of calcium silicate hydrate and Bentonite bind the odour badly.

All manufacturers recommend daily cleaning of the cat toilet. However it is important that the litter binds the odour because when the cat's urine

decomposes through the bacteria it can really smell unpleasant. We asked 4 people to subjectively sniff the amount of ammonia and then we measured it. Especially strong were Attica Hygiene, Dein Bestes, 'Ja' Cat litter, Natusan and Numa. As a rule, in these products, the measurable ammonia content was correspondingly high. 6 brands bind the odour so well that our 'sniff' candidates graded the intensity of smell as 'weak' and characterised the smell as neutral, woody and mild. Also we accepted a weak, rotten or musty smell.

- We also tested whether and how much dust was created when the trays were filled with the litter. Dr Markus Mattenklott from the Institute of Workers' protection of German legal Health and Safety said that, if possible, one should avoid dust pollution with litter, especially with products that contain quartz, calcium silicate hydrate and Bentonite. 'From experience we know that regular exposure to dust in your job can lead to lung disease. Fine particles of quartz dust that are breathed in can cause silicosis, a serious change in the connective tissue of the lung'.

- A further result of our test showed that in 5 of the non-clumping products a greasy film of dust and urine can be created on the bottom of the cat toilet/litter tray.

Some information about the materials

Bentonite is frequently characterised as a natural clay substance. As well as being used in cat litter where it is in granulated form, Bentonite has other properties. As a powder it can improve the storage ability for water and plant foodstuffs from the earth. Also it is used in the food industry in clarifying drinks, such as beer. 4 brands are made of calcium silicate hydrate. Catsan is one of these, although quartz and lime are given on the packaging. Other manufacturers say that their cat litter products are made of 'natural minerals'. What is right is as follows : a mixture, which mainly consists of quartzsand, lime and water, foams up with the aid of aluminium powder and under pressure and heat hardens into a kind of an enormous pressure cooker. Also porous concrete like Ytong is also produced from calcium silicate hydrate. 2 products are made of plant fibres. The firm Rettenmaier and Sons produce both brands, who have informed us that the wood comes from woods in South Germany, from local spruce and fir trees, which are certified with the seal PEFC. That is forest management and usage. Litters from plant fibres are lighter than the heavy bentonite litters. That is advantageous when the land- fill bin is collected and households are charged according to weight. There is one product that is made of recycled cellulose and pulp. According to the manufacturers of Catolet it's all to do with industrial waste from the production of corrugated cartons and fleece products, like babies' nappies.

										
Cat litter	Bio Catolet	Cat's Best Oeko Plus Katzenstreu	Dehner Zoo Oeko	Thomas Katzenstreu	Coshida Katzenstreu	Edeka Domino Katzenstreu	Attica Hygiene Katzenstreu	Catsan Hygiene Plus	Dein Bestes Klumpstreu	Trixie Fresh 'n Easy Die
Supplier	Catolet	JRS – Rettenmaier and	Dehner	Masterfoods	Lidl	Edeka	Netto-Marken-Discount	Mars	Dm	Trixie Heimtierbedarf
Material/ origin	Industry – Recycled paper	Plant fibres from spruce/fir (Germany)	Plant fibres from spruce/fir (Germany)	Bentonite (Greece)	Bentonite (Bulgaria/ Cyprus)	Bentonite (Czech Republic)	Calcium silicate hydrate/porous concrete	Calcium silicate hydrate Germany	Bentonite (Morocco)	Silicate (China)
Clumping litter	No	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No
Fibres harmful to the lungs	No	No	No	No	No	No	No	No	Isolated – detectable	No
Raised level of heavy metals	No	No	No	No	No	cobalt	No	No	No	No
Test results of the materials	Very good	Very good	Very good	Very good	Very good	Good	Very good	Very good	Good	Very good
Absorbency	High	High	High	High	High	Medium	Medium	minimal	Minimal	Minimal
Productivity of clumping	N/A	High	High	Medium	Medium	Medium	n/a	n/a	Minimal	n/a
Build up of greasy film	No	No	No	No	No	No	Possible	Possible	No	Possible
Odour control	High	High	High	Medium	medium	Medium	Poor	High	poor	Poor
Dust formation	Little	Little	Little	Medium	High	Medium	Medium	High	High	High
Test result	Very good	Very good	Very good	Very good	Good	Good	Satisfactory	Satisfactory	Satisfactory	Satisfactory
Overall result	Very good	Very good	Very good	Very good	good	good	satisfactory	satisfactory	satisfactory	satisfactory

										
Cat litter	Ja! Katzenstreu	Numa Katzenstreu	Gimpet Biokat Classic Natur-Klumpstreu	Natusan Premium Klumpstreu	Premiere Excellent Premium Klumpstreu	Vitakraft Compact Ultra Klumpstreu	Winston Klumpstreu für Katzen	A&P Fenja Bentonit Katzenstreu Klumpendbindend	As Care for Cats Bio Katzenstreu	Tip Katzenstreu Bentonit
Supplier	Rewe	Penny	H.v. Gimborn	Masterfoods	Multifit	Vitakraft	Rossmann	Kaiser's Tengelmann	Schlecker	Real/Extra
Material/ origin	Calcium silicate hydrate/porous concrete (Germany)	Calcium silicate hydrate/porous concrete (Germany)	Bentonite (Germany)	Bentonite (Spain)	Bentonite (USA) contains baby powder aroma	Bentonite (Europe)	Bentonite (Czech Republic)	Bentonite (Morocco)	Bentonite (Morocco)	Bentonite (Europe)
Clumping litter	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fibres Harmful to the lungs	No	No	No	No	Isolated as adherent particles which can become detached, detectable	No	No	No	Isolated, detectable	No
Raised level of heavy metals	No	No	No	No	No	No	Cobalt/nickel	No	Thallium	No
Test results of the materials	Very good	Very good	Very good	Very good	Good	Very good	Good	Very good	Satisfactory	Very good
Absorbency	minimal	minimal	Medium	High	High	Medium	Medium	Medium	Medium	Medium
Productivity of clumping	n/a	n/a	Minimal	High	High	High	Medium	Minimal	Minimal	Minimal
Build up of greasy film	possible	Possible	No	No	No	No	No	No	No	No
Odour control	poor	Poor	High	Poor	Medium	Medium	Medium	Medium	Medium	High
Dust formation	High	High	Medium	Medium	Little	Little	Medium	High	Medium	High
Test result	poor	Poor	Good	Good	Very good	Good	Good	Satisfactory	Good	Satisfactory
Overall result	poor	poor	Good	Good	Good	Good	Good	Satisfactory	Satisfactory	Satisfactory

Purchase

Our professional shoppers didn't find the purchase of cat litter easy. That wasn't because of the choice in supermarkets, specialist outlets, discount stores and chemists but because many cat litters really weigh a lot. This factor alone can make beads of sweat form on the forehead of cat keepers when buying it and not least when using it at home. However some products are lighter than others, for example those made from plant fibres, recycled cellulose or calcium silicate hydrate. But as clumping cat litter is most common, we purchased predominantly this type of cat litter, which is made from bentonite.

Problematic substances

In the past we found in cat litter mineral fibres that can find their way in to the lungs. This time, as well, we examined the materials. These crucial particles have a length-diameter ratio of 3:1 are at least 5 micro metres long and less than 3 micro metres thick. In addition we had heavy metals analysed. When breathing in with the dust, these can find their way in to the lungs.

Evaluation

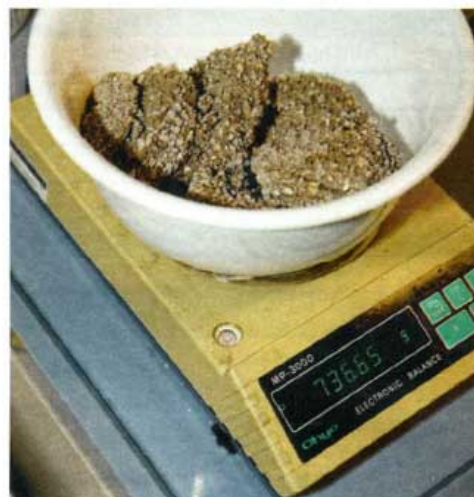
Cat litter should neither exhibit contents which are dangerous to the health nor should it be unsuitable for the job. Therefore the overall assessment cannot be better than the test result of its contents and the practical examination test result. However in most litters it was the performance in the practical test which tipped the scales for the overall assessment – and here the individual products varied considerably. We awarded minus points for under-average absorbency as well as poor odour control and if it kicked up too much dust.

The Practical Test



How much clumping litter is used when the cat does its business? Are all clumps with all brands of litter the same size? In order to find out, cat litter was put in a container to a depth of 8 cm. Then a weak squirt of 50 ml. of water was applied to 5 areas of the litter. The testers then took out the clumps with a small shovel and weighed them.

It is unpleasant for humans and cats when dust is kicked up from the litter, be it from filling and emptying the litter tray or from the cat pawing at it. 4 people judged the dust by pouring out the litter into a container from a height of 50 cm. We then gave an average mark from the verdicts of the 4 people.



How well does the cat litter prevent unpleasant smells? Urine substitute together with cat litter and bacteria was shut in a container. 4 People sniffed the container on the second day and awarded marks for the intensity of the smell.

How much water can the cat litter absorb? The cat litter was poured into a sieve, weighed and the sieve put under water. The litter had exactly 20 mins. to absorb the water and then the sieve was raised out of the water. After a drying time the sieve was weighed again and the level of moisture which had been taken in was calculated.

