

Memoryfoam information

A Guide to Buying a Memory Foam Bed/Mattress

In the following information guide I will try to answer every possible question relating to memory foam mattresses and beds.

For example: how does memory foam work, what are the different types of memory foam, what are the differences in quality and thickness and what do you really need to know when you buy a memory foam bed. In this website I will share my knowledge and expertise of memory foam beds with you and will try to be as objective as possible to show you the best memory foam beds on the market today, although I do have my personal preferences.

If you miss something or you have questions please do not hesitate to contact me.

Memory Foam History

A Brief history about memory foam

Memory foam was developed in the seventies but didn't reach the consumer market until the end of the nineties.

I came in contact with Tempur in 1994 and instantly thought it was incredible! The materials used were originally developed for space shuttles by the space institute NASA, although ironically enough it was never actually used for such a purpose. The original memory foam (originally T-foam) it turned out was not ideal to work in space.

However, people did see possibilities for it in the health sector and very quickly memory foam dominated this market. Soon they heard from patients that slept on Tempur memory foam beds that they slept better, turned less in their sleep and that it seriously reduced back problems. This in turn led Tempur to start selling beds directly to the consumer market and with great success. Coming from a medical background Tempur foam was quite expensive and still remains so to this day.

In 1995 the patent on T-Foam (memory foam) became free, making it possible for a number of foam manufacturers to produce their own version of memory foam. Now, (March 2008) almost all foam producers in the world create their own version of memory foam.

So it is quite logical to think that all these types of memory foam differ; they differ in quality, density, firmness, reaction on temperature and lifespan. To produce our own beds I have visited a vast number of foam factories and have seen the different production processes first hand. It quickly became very clear that each memory foam is very different, especially when it comes to temperature reaction and density and of course the quality and importantly the price. Personally I have concentrated on medically certified high quality foams. I will now try to explain what is important in buying a good quality memory foam bed for a good price.

Memory Foam

and its Many Unique Advantages

I have seen all types of mattress material variants..... In principle there are only 7 different kinds: air, pocket spring/inner spring, latex, polyether, cold foam, memory foam and waterbeds. In my opinion there is no material that even comes close to memory foam... Although, perhaps a waterbed. When it comes down to comfort, to perfect weight distribution, adaptability there is nothing that you can really compare to a memory foam bed. With "normal" foams, when the foam is pushed it will spring back to its original shape immediately but memory foam will adapt completely and does not return straight away. This is due to its open cell structure allowing pressure to be spread to other cells due to the fact they have holes in the cells. This means all body parts especially the ones that protrude (your shoulders and hips for example) will not have any extra pressure placed on them, this pressure disappears.

Another unique aspect of memory foam is that it also reacts to temperature. With your outer body temperature (28/29degrees) the material will react by getting softer on those parts that stick out due to there being more pressure placed on them. This temperature reaction makes the memory foam a unique mould of your body form.

Memory foam and temperature sensitivity

The amount of temperature change that occurs has everything to do with the density of the memory foam. This means that when it's cold the foam will be harder (viscose) and with heat it becomes softer and more flexible (elastic), the higher the density the more temperature sensitive the foam becomes but I will get back to this later under the heading **Density**.

Memory foam is also called visco-elastic polyurethane; other names are NASA foam, slow motion foam, lazy foam, visco foam, temperature sensitive foam and Tempur foam. Tempur were very clever in their marketing in calling it Tempur foam thus making memory foam their product's brand name and their business name. In my show room I have over 30 different kinds of memory foam, a lot of those foams are not as good as Tempur foam but there are also ones that I think are in fact better. The temperature sensitivity creates most of the comfort, this determines if the foam will press back or not, or in other words how good it will create a mould of your body. Anyway in principal we are talking about temperature sensitive foam. It is this temperature sensitivity that gives such a special feeling of melting into the mattress. Some memory foams like Tempurpedic/Tempur are extremely temperature sensitive and become harder by as little decrease in temperature as 6-8 degrees.

This has to do with the high density. By lower densities (50-60kg m³) there is a wider margin for the bedroom temperature as long as it is not colder than 10 degrees of the actual air temperature in the bedroom and warmer than 30degrees it will feel comfortable and soft. Also the ventilation is better in a lower density mattress, which is what I consider the best advice in this moisture rich environment that we live in in the UK

Density

of memory foam

Density refers to the cell structure; the higher the density the narrower the cell structure. Density can be made higher by applying pressure thus in a high density object the cells will become smaller thus the density increases. The only thing density tells us is about the cell structure and how much it weighs. It doesn't indicate anything of the quality of the viscose polyurethane and tells us nothing over the hardness or softness of the foam (bed). Soft, medium or firm can all be made from the same density of e.g 50kg m³. So it's not like with polyether that the more volume weight, the more kg in a cube the better. The memory foam only weighs more; it does not make it better. With memory foam we talk about kg m³, this gives us the density and in turn the cell structure make up. In cold foam we talk of HR (High Resilience) and cold foam is in principal similar to polyether in that the higher kg m³ the better.

Picture

A higher density will react better than the lower density foams. The high density feels harder and reacts slower making it slightly heavier to move around while sleeping in your bed. When the cells are smaller this automatically means the mattress provides poorer ventilation (the materials ability to breathe). It will become warmer and it will take up less moisture, this is because the foam will become more compact if the density is higher. Also, a higher density will also react stronger on temperature differences and will react slower on smaller margins in temperature differences.

In the medical field a higher density than 50kg m³ is never used. Be careful, there are some "colleagues" that claim to sell medical mattresses that are in fact of a density of around 70kg m³ which is therefore not medically certified.

40Kg/m³ 50Kg/m³ 70Kg/m³ 80Kg/m³



In the last couple of years I have seen a lot of new memory foams on the market with a density of 70-85kg m³. I can assure you this higher density does not give the same level of comfort as 50kg m³ memory foam. The mattress will have poor ventilation and will definitely be of a lesser quality with it being warmer for the occupant because of this high density. From cologne "the biggest mattress fair in Europe", this year I saw a few new brands that looked good, reacted well and worked with a density of 35-40kg m³. However, when the density becomes too low it will also affect the durability (lifespan) and so in my experience is that 50kg works perfectly and offers the best comfort.

The gluing process

of memory foam mattresses

As I deal with and supply a large amount of beds to the health care sector, it is very important that our beds are correctly ventilated and that they do not become damp/wet with 24 hour use. We use a totally open cell structure and glue these together in a natural way (water based glue). The advantage of gluing with water based glue in comparison with synthetic glue is that water based glue will only stitch/bind to the cell corners; because of this you don't close the cell structure and it keeps the material's ability to breathe and moisture can seep between the two foams (cold foam/memory foam) easily.

What is promised and what is delivered can differ greatly in this industry. In our showroom we have lots of different mattresses from colleagues for our customers to compare. We order them for us to know how they are made and what they are made from while at the same time allowing the customer to be able to really compare all the memory foams available. To our surprise we came to discover that at least three suppliers do not deliver what they promise to. On one occasion it said on their website and on their mattress that they deliver a cold foam HR45 when they actually deliver a polyether SG35. Please note that polyether is 9 times cheaper than cold foam!

But there are exceptions like Tempur, Hypnos and of course RHF that do deliver what they promise.

Below you can see an example of cold foam and polyether foam: polyether clearly has a small cell size when compared to cold foam and the cold foam cell structure has many different cell sizes in contrast to polyether where all the cells are the same size.



Foam layers glued correctly.



Foam layers glued badly, to thick layer of glue so ventilation becomes a problem.

Rumours and Misinformation

Recently I was made aware that there are some very strange stories on many bed forums regarding memory foam:

Memory foam is poor in ventilation!?

Memory foam has been used for the last 15 years and this is mostly in the medical field especially because of its ventilation abilities and of course of its perfect weight distribution.

Gasses coming out of synthetic foams!?

I myself only use medically certified foams from factories that are also ISO qualified. The ISO qualification is especially important because the quality and the firmness or softness are always the same.

Memory foam could be too warm to sleep on!?

Good memory foam has an open cell structure and because of this it has good ventilation. It is closed cell structures that hold onto heat (poor quality and cheap memory foam), for example latex is much warmer. It is true that memory foam goes more around your body and because of this holds on to your body heat. It is not warmer than polyether and definitely cooler than latex. In principal the heat has to do with density, (the higher the density the smaller the cells the warmer it is).

You cannot sleep on Memory foam in a cold bedroom!?

In a cold bedroom, memory foam will react slower, that is all! However, a thicker cover will make it a lot more comfortable because the first contact will be more comfortable.

A heated blanket cannot be used on a memory foam bed

Rubbish! The only thing I would advise would be to turn off the electric blanket before you go to bed. This way the memory foam can do a better job of moulding to your body and you are not exposed to an electromagnetic field.

I think that nearly all foam factories produce their own form of memory foam. This has resulted in a large number of different kinds of memory foam on the market which whilst making it become affordable has also brought a downside – a vast difference in quality. As with any product range you are going to get people producing very poor quality products on the market and memory foam is no different. Some foam doesn't even react on temperature. The good news though is that bad memory foam beds are almost always recognisable because of their low price. A good memory foam bed has at least 6 or 7 cm of memory foam and for example is at least 20cm thick, costing a minimum of approx £400. Note that this is the absolute minimum price you can buy a single memory foam mattress and around £1000 for a double. This price ok, Chris. I went in between what we offer of 800-1200 for double???

What kind of memory foam is good?

An important difference between memory foams is if it is a moulded product or a foamed process. The moulded foam is much, much cheaper and is incomparable with the quality of the foamed product. A moulded product will almost let no moisture through and will heat up very quickly as it cannot breathe (a closed cell structure). The better brands will never work with moulded foam but work with more expensive procedures like foaming and use better quality materials. Good memory foam will react by getting softer to body temperature of 28-29 degrees while some poorer memory foams will barely react if at all to temperature thus an important part of the memory foam effect will be lost. A good tip is by blowing directly on the foam with your mouth you can test for yourself if the foam reacts by getting softer. There is also memory foam on the market that reacts heavily with temperature which causes

several problems with your body sinking too deeply into the mattress and making moving around in bed uncomfortable, especially in the colder months of winter. Also the total weight (density) tells us something about the quality; in principal it works as follows; the lighter the more the air, the heavier the less the material breathes and therefore the poorer quality it is.

picture

I would therefore advise you not only to look at if it is moulded or foamed but to look at the temperature sensitivity, the density and the supplier. The bigger name brands are far more trustworthy because they work with the best materials and not inferior/cheap materials. However, if you purchase a house brand or an unknown brand you have to ask a lot of questions; like where the foam comes from and who the producer is as well as what density it is, etc. Of course most suppliers don't want to tell you who their supplier is. This makes perfect sense otherwise everyone would try to buy from the supplier direct so you could ask at least how long they have had a relationship with their factory or producer. Like with most products if you find something very cheap it is most likely an indication that it is poor quality foam or from an unreliable or somewhat questionable factory.

The durability (lifetime) of a mattress is also very important. You can see by what kind of guarantee they offer the idea of the lifespan of the bed. Is it fully guaranteed or is it a limited warranty that is very short? Naturally a fully guaranteed product is better because the factory is sure about its product. Some memory foams feel perfect when you buy them but they dry out relatively quickly and lose their shape and comfort over a short space of time. A memory foam bed is very difficult to judge how long it will last so this is why buying a product without a long guarantee/warranty is not a smart move. Nothing is better than a real test (sleeping on it) instead of artificial simulated testing with test dummies. The foams that I personally really like all come from reliable producers and are fully tested with more than 12 years on the market. Its just that you leave out so many problems if the product is already proven.

Trial Periods

Maybe the most important aspect is a trial period. I have seen over and over again how disappointed people were when the product they purchased wasn't what they expected even though they really tried to seek the perfect bed for them. A trial period will avoid a lot of problems but then again you still must be careful of how they offer their trial period. Can you get a full refund or are you required to get a credit note in store for another product when returning your item. Do they charge you for the bed being sent back to them or is this covered by them. The best situation would be that you can give the product back and get 100% your money back if the product is not the right one for you.

It's also important that you do have enough time to try out your bed properly; in my eyes you need a minimum of 30 days. This is due to the importance that your body gets the chance to get used to the new correct sleeping posture. As a result of this you will get some pains here and there in the beginning this is almost always the case at first but it stops after 2-3 weeks after your posture has

been corrected. (yes, memory foam actually corrects your posture while you sleep hence the relief of back ache and other pains) This is why a month minimum trial period is necessary.

Above all I can advise you to go for quality. You do not need to buy the most expensive bed but do not buy the cheapest one either, your rest and your health is something too important to compromise on quality.

I have been in the bed business for over 10 years since 1998 producer of royal health foam. Through the website I have tried to give objective information so you have a clear vision of where to look for a really good quality memory foam mattress.

If there is anything that is unclear or you would like to ask me any further questions please don't hesitate to email me at traagschuim.info

Your sincerely,
Chris Nederhorst

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