2016-020

From: [redacted]
Sent: 10 November 2016 14:44
To: Knox Christine (RD)
Subject: Submission to consultation

Hi Christine,

As per your conversation with my colleague Chris Manning, please find attached and below Cabinet Maker's submission to the consultation document. Please feel free to get in touch if you require any further information at all.

Kind regards,

[redacted]

Editor

[redacted]

Cabinet Maker magazine, the longest serving UK trade news magazine for the furniture professional, recently commissioned the UK's largest furniture association, Fire Industry Research Association (FIRA) to conduct 'blind' fire safety and component assessments on a sample of 42 single mattresses to assess whether they met the current regulations, as well as BS 7177:2008 Specification for Resistance.

The mattresses were purchased from a wide range of independent, online, multiple and high street retailers and each were priced at between £100 and £400.

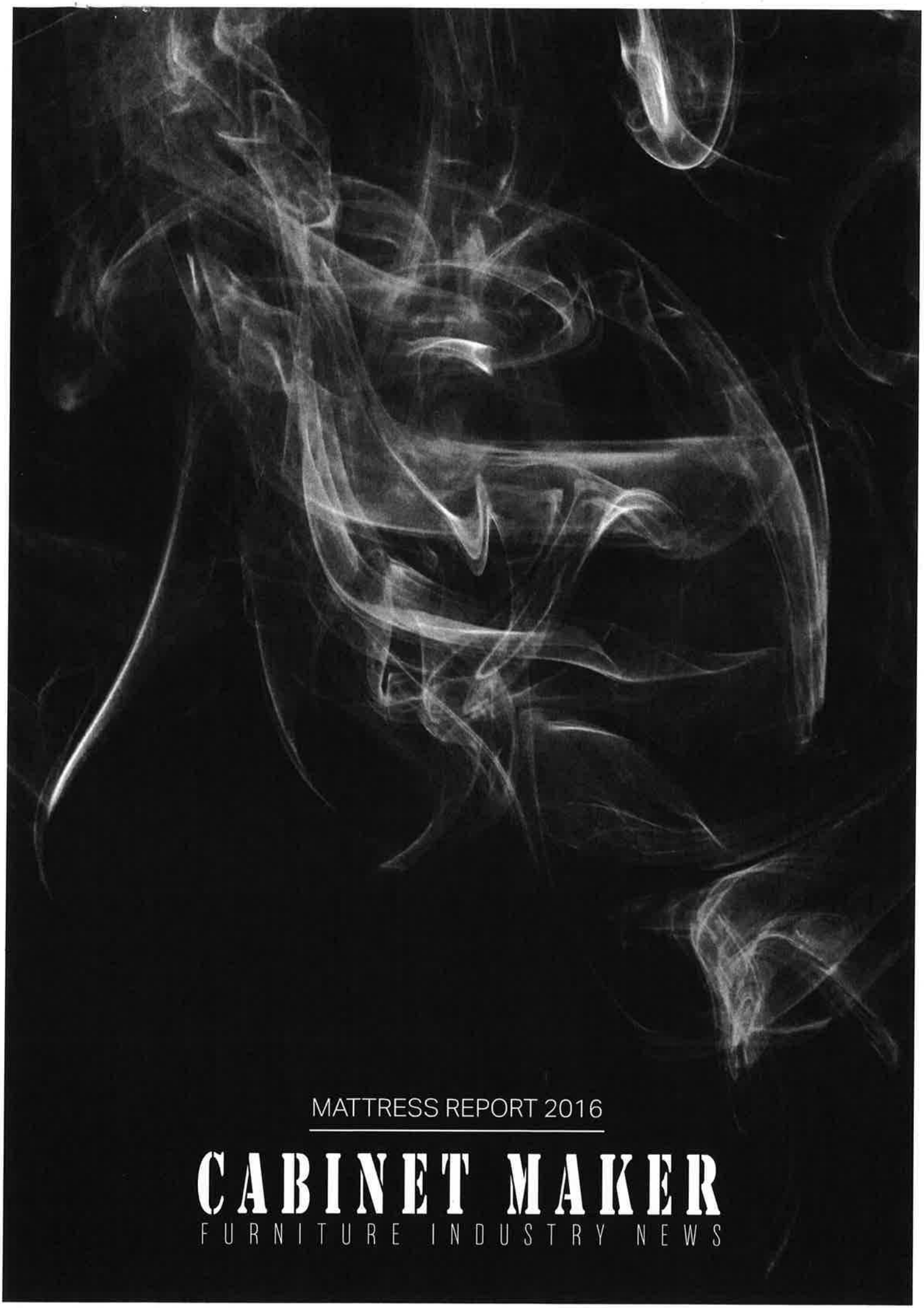
Key findings include:

- One in four sample mattresses failed fire safety tests, mostly in the spring free and open coil segments.
- Mattresses supplied by some of the notable retailers and some web-based independents failed fire safety standards tests.
- 33% (13 of 42) of mattresses tested were sold by members of the National Bed Federation, but 40% (four of 10) mattresses that failed fire safety tests were delivered by NBF members.
- A further two mattresses that failed standards tests were delivered by suppliers that are not members, but display a "supporting the NBF" logo on their website; these mattresses were manufactured by NBF members. In total, 70% (seven of 10) mattresses that failed fire safety tests were supplied and/or manufactured by NBF members.

- Evidence of strong compliance amongst some high street retailers and independents.

The level of fire safety test failure - nearly one in four mattresses tested in our survey - indicates to us that the current system is not working. We feel that if the sector is unable to fully police itself in order to ensure that neither the consumer's safety nor our reputation as an industry is compromised, perhaps the introduction of more stringent regulations is the answer.

This email has been scanned by the Symantec Email Security.cloud service.
For more information please visit http://www.symanteccloud.com



MATTRESS REPORT 2016

CABINET MAKER

FURNITURE INDUSTRY NEWS

The Cabinet Maker Mattress Report 2016

Introduction

As you will be aware, September of this year saw the government re-start its consultation into a potential revision of the 1988 Furniture and Furnishings (Fire) (Safety) Regulations (FFRs). The changes detailed in the proposal were the result of a stakeholder request that regulations reflect changing consumer expectations and modern furniture manufacturing practices, focusing in particular on the testing methods. The consultation period for the document closed on Friday 11 November.

In light of this consultation, and as part of our duty to report candidly on all aspects of the industry on behalf of our readers, Cabinet Maker commissioned the Fire Industry Research Association (FIRA) to conduct 'blind' fire safety and component assessments on a sample of 42 single mattresses to assess whether they met the current regulations, as well as BS 7177:2008 Specification for Resistance.

The mattresses were purchased from a wide range of independent, online, multiple and high street retailers and were each priced at between £100 around £400. The study was representative of the beds market and our editorial policy dictates that we publish our findings in a fair, objective manner for all tested products that passed or failed on the day.

This document details our findings and includes the methodology used, any mitigating circumstances to be taken into account and the full range of reports provided by FIRA. We invite anyone who wishes to respond to our findings or to put forward an opinion about the proposed changes to the regulations to get in touch.

Contents

Executive Summary	Page 3
Key Findings	Page 5
Research Findings	Page 6
Fire Safety	Page 8
Spring Free	Page 10
Open Coil	Page 12
Pocket Sprung	Page 13
Component	Page 14
Pocket Spring	Page 15
Open Coil	Page 18
Spring Free	Page 20
Delivery Experience	Page 23
Conclusion	Page 25
Appendices	Page 26

EXECUTIVE SUMMARY

Mattress testing -

- Mattresses supplied by leading retailers IKEA, Dreams, John Lewis and Worldstores have failed fire safety tests conducted by a leading furniture safety testing body.
- The majority of mattress fire safety failures were sold by or manufactured by members of the National Bed Federation, indicating possible breaches of the NBF's code of conduct and trading standards violations.
- The government needs to address why the mattress industry is failing to comply with regulations and standards in its review of furniture fire and safety regulations; the consultation ends on 11 November.

Cabinet Maker commissioned the Fire Industry Research Association (FIRA) to conduct fire safety and component assessments on 42 single mattresses. The mattresses were purchased from a wide range of independent and high street retailers and were priced between £100 and £400.

FIRA blind tested the mattresses to assess whether they met the legally binding Furniture & Furnishings (Fire) (Safety) Regulations 1988 (as amended) as well as BS 7177:2008 Specification for Resistance. Compliance with these regulations and standards are membership obligations under the Code of Conduct for the self-regulating industry body, the National Bed Federation (NBF). The mattresses' internal components were also measured to assess whether they were sold as advertised.

There has never been a more crucial time for the industry to assess the application of fire safety regulations. With rising incidents of consumer appliances causing fires - most notably with the recent safety problems with Galaxy Note 7 batteries and fires caused by overheating laptops - the risk of mattress fires continues to exist even as cigarette-related house fires decline.

On 11 November 2016, the UK government will conclude its consultation into proposed changes to the furniture and furnishings fire safety regulations. The government's consultation paper states that "the Regulations are no longer entirely appropriate to changing consumer expectations, and furniture manufacturing practices. Areas of concern include the scope of the Regulations, their enforceability, and the effectiveness of the testing regime."

The government proposes "incentivising a reduction in the use of flame retardant chemicals" in response to environmental concerns while ensuring no reduction in safety. Our research finds that some leading retailers are failing to abide by current regulations and standards. Moreover, the majority of failures were sold by and/or manufactured by NBF members.

The British mattress industry is a large and fast-growing business. The advent of internet shopping has enabled new players to enter the market by connecting consumers directly with suppliers, which has driven down prices. The low cost of entry to the market has enabled a plethora of manufacturers and retailers entering the market with a high degree of vertical integration.

Where there is fierce competition, margins are placed under pressure and producers are compelled to either add value to the consumer experience or cut costs, which could undermine consumer safety. Our research suggests that the industry and authorities need to address compliance and safety through the supply and logistics chain as part of the review of fire regulations.

FIRA's testing found the following results:

- Although there was a similar number of mattresses from each category, five of the 10 mattresses that failed fire testing were coil sprung, four were spring free and just one was pocket sprung.
- All three mattresses supplied by Mr Mattress (owned by Monomarket Ltd) failed to meet BS 7177 standards.
- Two of the six mattresses supplied by MattressNextDay (owned by Bedsonline.biz Ltd) failed fire safety standards tests.
- Other suppliers that supplied mattresses that failed fire safety standards include Hyde & Sleep (Dreams), John Lewis and Worldstores subsidiaries Mattresses World and Bedstore.
- IKEA's "Morgedal" foam mattress failed fire safety regulations, although it passed the British Standards tests. In 2012, IKEA claimed that, based on 25 years of sales, one in five Brits sleep on an IKEA mattress, making it one of the UK's leading brands.1
- 33% (13 of 42) of mattresses tested were sold by members of the National Bed Federation, but 40% (four of 10) mattresses that failed fire safety tests were delivered by NBF members. A further two mattresses that failed standards tests were delivered by suppliers that are not members, but display a "supporting the NBF" logo on their website; these mattresses were manufactured by NBF members. In total, 70% (seven of 10) mattresses that failed fire safety tests were supplied and/or manufactured by NBF members.

Key Findings

State of the market

The British mattress manufacturing industry produced over six million mattresses with a total value of £502mn in 2015. The sector's output rose by 13% in volume and 12% in value in 2015, but falling prices indicate that the market may be at saturation point. The industry faces the challenge of a potential slowdown in the economy. The low cost of entry to market provided by internet shopping is leading to an increasing number of independent manufacturers who can sell direct to the consumer, challenging the dominance of traditional High Street retailers. Market consolidation is probable and consumer protection provides the opportunity to ensure that good practice and quality products are rewarded.

Fire safety

Fire safety issues are likely to heighten. Cigarette and electric blanket fires are the main causes of accidental mattress fires, but overheating laptops, faulty mobile phones and other consumer appliances are increasingly significant in mattress fires. Cabinet Maker purchased 42 mattresses from a range of independent and High Street suppliers, including 12 spring free, 15 open coil and 15 pocket sprung mattresses. We sent them to the Furniture Industry Research Association (FIRA) for testing for compliance with fire safety regulations and standards.

Nearly one in four mattresses failed fire safety tests, mostly in the spring free and open coil segments. Half the mattresses that failed fire safety tests were manufactured by members of the National Bed Federation (NBF), who are required to abide by a Code of Conduct that includes compliance with fire safety regulations and safety standards. The country's biggest mattress retailers are among those who sold us mattresses that fail fire safety tests as well as some emerging web-based independents. However, there was also evidence of strong compliance among some High Street retailers and independents. The areas of failure were ticking and taped edges, but in the spring free segment two of the four failures were related to foam components.

Components analysis

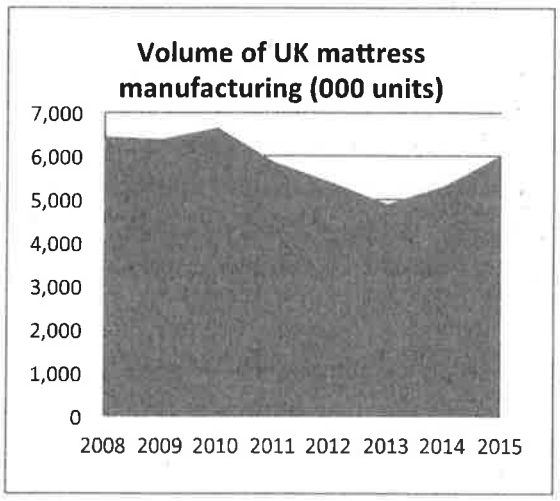
We found extensive evidence that retailers are bamboozling consumers with jargon, making product comparisons difficult. Components are given elaborate technical names without adequate explanation. In the open coil and spring free segments, there was no evidence of significant mis-selling of the size and quantity of components, aside from the bewildering range of names used to describe polyurethane foam, polyester wadding and metal springs. In the pocket sprung segment, there is a tendency to give spring counts that apply to king size mattresses in product specifications for smaller mattresses without making this clear to consumers.

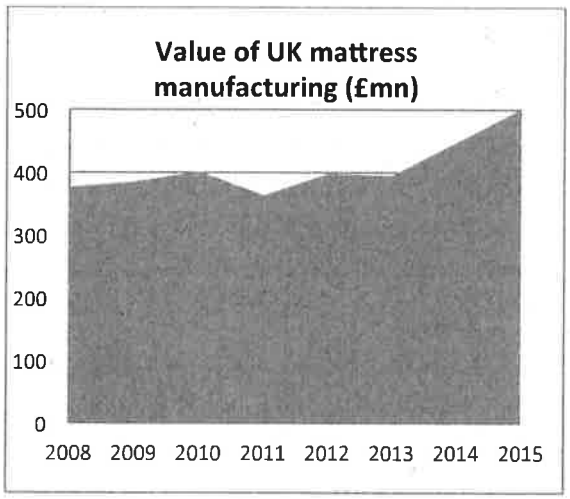
Consumer experience

We assessed the delivery turnaround, packaging and customer service provided by suppliers of the mattresses we purchased. We found that the best performing retailers were web-based independent retailers with High Street retailers largely lagging behind, particularly in delivery times.

Research Findings: Introduction

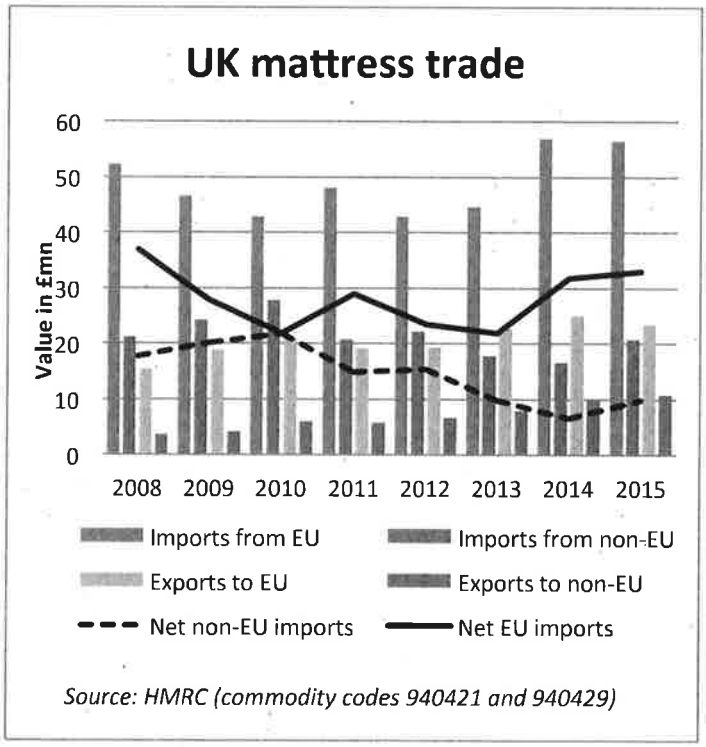
The British mattress industry is a large and fast-growing business. In 2015, the value of UK mattress manufacturing industry exceeded £500mn with just over six million units produced. The sector grew by 12% in value and13% in volume, making it one of the fastest growing industries in the UK. An estimated average 1% decline in wholesale unit prices indicated that the market could be approaching saturation.





Source: ONS, UK Manufacturers' Sales by Product Survey (PRODCOM), SIC(07) 3101 (CN 94042910, CN94042190 and CN 94042110)

The UK mattress market is dominated by British manufacturers with imports comprising a relatively small share of total sales. Trade data show that UK mattress imports totalled £77.3mn in 2015 while exports totalled £34.4mn. Nearly three quarters of imports came from the EU. The depreciation of the pound sterling means British manufacturers are likely to take a bigger share of the market, but the economic situation will still be tough.



Source: HMRC (commodity codes 940421 and 940429)

The advent of internet shopping has enabled new players to enter the market by connecting consumers directly with suppliers, which has put downward pressure on prices. The low cost of entry to the market has

enabled a plethora of manufacturers and retailers entering the market with a high degree of vertical integration. This is shaking up the market with growth in web-based independent mattress traders challenging traditional High Street retailers.

Where there is fierce competition and downward pressure on prices, margins are placed under pressure and producers are compelled to either add value to the consumer experience or cut costs, which could undermine consumer safety. With the market at saturation and demand tailing off, consolidation in the mattress manufacturing sector is probable. Greater consumer protection could ensure that best practice is rewarded and the quality of good British manufacturing is enhanced.

On 11 November 2016, the UK government concluded its consultation into proposed changes to the furniture and furnishings fire safety regulations. The government's consultation paper states that "the Regulations are no longer entirely appropriate to changing consumer expectations, and furniture manufacturing practices. Areas of concern include the scope of the Regulations, their enforceability, and the effectiveness of the testing regime." The government proposes "incentivising a reduction in the use of flame retardant chemicals" in response to environmental concerns while ensuring no reduction in safety.

In an effort to support consumer protection, Cabinet Maker conducted research on mattress fire safety, advertising standards and customer service. We bought 42 single mattresses from a range of suppliers at around the £100-400 price point, subjected them to fire safety tests and examined internal components.

Research Findings: Fire safety

- A third of spring free and open coil mattresses failed fire safety tests. Pocket sprung mattresses were safer with just one of 15 failing the tests. In total, 10 out of 42 mattresses failed safety tests, equating to nearly a quarter.
- Foam fillings accounted for two of the four fire safety failures in the spring free segment.
- Five failures were related to the ignition of outer surfaces and three were caused by taped edges.
- All five mattresses supplied by Bensons for Beds from all three market segments passed fire safety tests.
- All seven mattresses supplied by Mattress Online passed fire safety tests. Mattress Online won the NBF's e-retailer of the year award for 2015-16 and best retailer of the year 2016-17.
- All three mattresses supplied by Mr Mattress (owned by Monomarket Ltd) failed to meet BS 7177 standards. Mr Mattress won the NBF's independent bed retailer of the year award for 2015-16.
- Two of the six mattresses supplied by MattressNextDay (owned by Bedsonline.biz Ltd) failed fire safety standards tests.
- Other suppliers that supplied mattresses that failed fire safety standards include Hyde & Sleep (a division of Dreams), John Lewis and Worldstores subsidiaries Mattresses World and Bedstore.
- IKEA's "Morgedal" foam mattress failed fire safety regulations, although it passed the British Standards tests. In 2012, IKEA claimed that, based on 25 years of sales, one in five Brits sleep on an IKEA mattress, making it one of the UK's leading brands.[1]
- 24% (10 of 42) of mattresses tested were manufactured by members of the National Bed Federation, but 50% (five of 10) mattresses that failed fire safety tests were manufactured by NBF members.

There has never been a more crucial time for the industry to assess the application of fire safety regulations. With rising incidents of consumer appliances causing fires - most notably with the recent safety problems with Galaxy Note 7 batteries and fires caused by overheating laptops - the risk of mattress fires continues to exist even as cigarette-related house fires decline.

Although smoking has declined in since the 1988 regulations came into force, cigarettes remain a cause of mattress fires. In August 2016, smoking materials caused a mattress fire in Tunstall, Staffordshire leading to severe damage in the bedroom where the blaze broke out. No one was in the house at the time of the fire, which was treated as accidental ignition by the fire and rescue service.[2] In July, a house fire in Didcot, Oxfordshire was found to be caused by a mattress ignited by a cigarette, putting the life of the occupant at risk.[3]

---

[1] "IKEA CELEBRATES 25 YEARS IN THE UK", IKEA press release

[2] http://www.stokesentinel.co.uk/firefighters-deal-with-fire-caused-by-smoking-materials-on-nash-peake-street-tunstall/story-29609352-detail/story.html#OBSh1fyhsHPx6pms.99

[3] http://www.oxfordmail.co.uk/news/14638412.Neighbours_to_the_rescue_after_cigarette_starts_fire_in_Didcot_home/?ref=mr&lp=14

Cigarettes are not the only hazard. In October, a blaze broke out in the home of an elderly woman in Canterbury, Kent after an electric blanket set her mattress on fire.[4] In December 2015, a woman in Cefn Fforest, Gwent was left scarred for life after her electric blanket set her mattress ablaze while she was asleep. The fire caused two large holes in the mattress.[5]

A mattress fire in Didcot caused by a smouldering cigarette. Pic: Oxfordshire Fire and Rescue

The danger of mattress fires has prompted action by Trading Standards services with a nationwide clampdown on the sale of mattresses that fail to meet fire safety standards. However, the overwhelming focus has been on "van scams", which have resulted in prosecutions and custodial sentences, and not legal manufacturers.[6]

Cabinet Maker commissioned the Fire Industry Research Association (FIRA) to conduct fire safety and component assessments on 42 single mattress. The mattresses were purchased from a wide range of independent and high street retailers and were priced at around the £150-300 price point.

FIRA blind tested the mattresses to assess whether they met the legally binding Furniture & Furnishings (Fire) (Safety) Regulations 1988 (as amended) as well as BS 7177:2008 Specification for Resistance. Compliance with these regulations and standards are membership obligations under the Code of Conduct for the self-regulating industry body, the National Bed Federation (NBF).

---

[4] http://www.kentlive.news/fire-crews-rush-to-a-bedroom-fire-in-canterbury-caused-by-a-fault-with-an-electric-blanket/story-29789605-detail/story.html#ER68y6WqJbRAiPqi.99

[5] http://www.southwalesargus.co.uk/news/gwentnews/14163163.UPDATE__Woman__scarred_for_life__after_electric_blanket_house_fire/

[6] http://www.local.gov.uk/media-releases/-/journal_content/56/10180/7982250/NEWS

Spring Free

Of the 12 spring free mattresses tested by FIRA, four (33%) failed fire safety tests. Two of the spring free mattresses that failed the tests were known to be manufactured by NBF members. The manufacturers of the other two mattresses could not be determined and we have no way of knowing whether they are members of the NBF. Of the nine that passed, five were manufactured by members of the NBF and manufacturers of the rest were unknown.

In terms of retailers, MattressNextDay sold one spring free mattress that failed and one that passed. IKEA, Bedstore and Hyde & Sleep accounted for the other two fire test fails. Two of the fails were caused by foam components, while the other two failed when a match flame was applied to the outside of the mattresses.

In the case of IKEA's Morgedal Foam mattress, the mattress passed the cigarette and match flame tests (BS EN 597 parts 1 and 2) to the top and bottom surfaces, but the polyurethane foam interior failed the flame test under Schedule 1 Part 1 of the regulations. Following the removal of the ignition source to the foam, the loss in weight caused by the fire was greater than the 60g stipulated as a fail. The flames continued for over five minutes in each of the two applications of the flame and smouldering continued for 10 minutes. The flame penetrated the full thickness of the foam and charring caused by smouldering extended greater than 100mm from the crib.

The Pureflex Latex foam mattress failed regulation Schedule 1 Part 3 of the regulations when the latex foam layer caught alight. The test was terminated after 74 seconds for safety reasons as the test assembly area had caught fire. The inspection found that the extent of damage to the latex was beyond 100mm from the ignition source.

Both the Hyde & Sleep and Lurex Ortho mattresses failed to meet BS 7177: 2008. The Hyde & Sleep mattress failed the match flame test to the bottom surface with flames spreading rapidly across the surface and continuing longer than the stipulated two minute time period. The Lurex Ortho mattress also failed the match flame test on the first application to a flat surface of the mattress when the flame spread across the surface and continued for more than two minutes.

Retailer	Mattress	Manufacturer	NBF member	Result	Cause of failure
IKEA	Morgedal Foam	n/a	n/a	FAIL	PU foam
Hyde & Sleep (Dreams)	Hyde & Sleep	Breasley Pillows Ltd	Yes	FAIL	Bottom surface
Bedstore (Worldstores)	Pureflex Latex Foam	A J Foam Ltd	Yes	FAIL	Latex foam
MattressNextDay (Bedsonline.biz Ltd)	Lurex Ortho	Hyder Beds	n/a	FAIL	Flat surface
Bruno Interiors	The Bruno	n/a	n/a	PASS	n/a
Eve Sleep	Eve	n/a	n/a	PASS	n/a
Bensons For Beds	Easi Support Ortho	Relyon Ltd	Yes	PASS	n/a
Next	House Memory Foam	Relyon Ltd	Yes	PASS	n/a
Made.com	One by Made	n/a	n/a	PASS	n/a
Leesa Sleep	Leesa	n/a	n/a	PASS	n/a
MattressesWorld (Worldstores)	Anniversary Memory Support Revo Faom	Visco Therapy	Yes	PASS	n/a
MattressNextDay (Bedsonline.biz Ltd)	Relaxsan Waterlattex Vision	Relaxsan manufactured by Alessanderx S.p.a	Yes	PASS	n/a

Open Coil

Of the 15 open coil mattresses tested by FIRA, five (33%) failed fire safety tests. Two of the mattresses that failed the tests were known to be manufactured by NBF members. The manufacturers of the other two mattresses could not be determined and we have no way of knowing whether they are members of the NBF. One was produced by a manufacturer that is not a member of the NBF.

Of the 10 that passed, five were manufactured by members of the NBF, two were not members and manufacturers of the rest were unknown.

In terms of retailers, Mr Mattress sold three open coil mattress that failed, Mattress World sold one mattress that failed and one that passed and John Lewis sold one mattress that failed.

The Time Living Emerald and the Hyder Dual Density Coil mattresses failed to meet BS EN 597-2 as a result of the taped edge igniting and burning and spreading along the side of the mattress for more than two minutes after the ignition source was removed. The Highgate Emerald and the Mr Mattress Zodiac failed the same test after the flat side remained alight for more than two minutes after the ignition source. The John Lewis Open Spring Memory Foam mattress failed the ignition test on its bottom side.

Retailer	Mattress	Manufacturer	NBF member	Result	Cause of failure
Mr Mattress	Time Living Emerald	Time Living	No	FAIL	Taped edge
Mr Mattress	Mr Mattress Zodiac	n/a	n/a	FAIL	Flat surface
Mr Mattress	Highgate Emerald	Highgate Beds Ltd	Yes	FAIL	Flat surface
John Lewis	John Lewis Open Spring Memory Foam	n/a	n/a	FAIL	Bottom side
MattressesWorld (Worldstores)	Hyder Dual Density Coil	Hyder Beds Ltd	YES	FAIL	Taped edge
Bensons For Beds	Sandringham Backcare 2016	Sealy Posturepedic	YES	PASS	n/a
Bensons For Beds	Silentnight Firm Comfort	Silentnight Group Ltd	YES	PASS	n/a
Bensons For Beds	Cleo Mattress	n/a	n/a	PASS	n/a
Dreams	Fenton Traditional	n/a	n/a	PASS	n/a
MattressesWorld (Worldstores)	Vogue Response Delia Ortho Coil Sprung	Vogue Beds Ltd	YES	PASS	n/a
Mattress Online	Classic Gold Ortho	n/a	n/a	PASS	n/a
Mattress Online	La Romantica Serenade Ortho	La Romantica Beds	No	PASS	n/a
Mattress Online	Pirelli Series 200	Sleepeeze	No	PASS	n/a
Mattress Online	Silentnight Moretto Miracoil	Silentnight Group Ltd	Yes	PASS	n/a
Bedstore (Worldstores)	Sareer Matrah Cool Blue Memory Coil	Platinum Enterprise (UK) Ltd t/a Sareer	Yes	PASS	n/a

Pocket Sprung

In the pocket sprung segment, there was only one failure out of 15 mattresses (7%). The Millbrook Ortho Pocket 1000 sold by MattressNextDay failed a match flame test to its taped edge. Three other pocket spring mattresses sold by the retailer passed the flame test. The manufacturer of the mattress is an NBF member. Of the 14 passes, 11 were manufactured by NBF members.

Retailer	Mattress	Manufacturer	NBF member	Result	Cause of failure
MattressNextDay	Millbrook Ortho Pocket 1000	Millbrook Beds	Yes	FAIL	Taped edge
Bensons For Beds	Canterbury Backcare Comfort	n/a	n/a	PASS	n/a
Dreams	Sleepeezee Arundel Pocket Sprung	Sleepeezee	Yes	PASS	n/a
John Lewis	Simba	n/a	n/a	PASS	n/a
Mattresses World (Worldstores)	Orchid 800 Quilted Pocket	Airsprung Beds Ltd	Yes	PASS	n/a
Mattresses World (Worldstores)	Pocket Shire Balmoral	Shire Beds	Yes	PASS	n/a
Mattresses World (Worldstores)	SleepShaper Backcare Pocket 1000	The Foam Company	Yes	PASS	n/a
Bedstore (Worldstores)	Bedmaster Majestic 1000 Pocket	Bedmaster	Yes	PASS	n/a
Bedstore (Worldstores)	Nicole 2000 Pocket Damask	Deluxe Beds Ltd	Yes	PASS	n/a
Mattress Online	Sweet Dreams Elise Memory Pocket 1000	Sweet Dreams Ltd	YES	PASS	n/a
Mattress Online	Myers My Super Memory 1000 Pocket	Myers Beds	YES	PASS	n/a
Mattress Online	Healthbeds Memory Med 1500 Pocket	Health Beds Ltd	YES	PASS	n/a
MattressNextDay	Rest Assured Pocket Ortho 1400	Rest Assured	YES	PASS	n/a
MattressNextDay	Springking Grand Luxe	Dreamland	NO	PASS	n/a
MattressNextDay	Tencel Pocket Ortho 1000	Hyder Beds Ltd	YES	PASS	n/a

Research Findings: Components

The Consumer Protection from Unfair Trading Regulations protect consumers from unfair or misleading trading practices and ban misleading omissions. Traders are banned from giving false information about the characteristics of goods, including omitting essential information that prevents them from making an informed choice.

When buying a mattress, consumers expect a similar quality at around the same price point. However, the nature of the product means that they have to have faith in the retailer to provide accurate information. They cannot check the internal components after purchase without dismantling and therefore destroying the mattress.

In an effort to assess whether the mattress market is providing consistent quality and internal components were correctly advertised, Cabinet Maker compiled the product specifications of mattresses at the time of purchase in July 2016. The mattresses were then delivered to FIRA for component analysis.

None of the mattresses supplied by retailers were re-covered old mattresses, which is the focus of trading standards clampdowns across the UK. However, we found that there was a consistent problem with product specifications in the pocket sprung segment, which could constitute a breach of regulations.

Pocket Sprung

In the pocket sprung segment, retailers highlight the number of springs in a mattress in order to demonstrate quality. A higher number of springs is regarded as more comfortable due to better support, providing a better night's sleep.

Based on the mattresses we purchased, our analysis finds that retailers in the pocket sprung segment consistently fail to provide accurate numbers of springs per mattress, although other components were accurately described. Descriptions are frequently vague and do not give consumers sufficient information to assess the quality of one mattress against another.

Mattress specifications often fail to indicate the number of springs for each size. Retailers commonly use the king size model in spring count specifications for all mattress sizes, but do not make this clear when a customer is buying other sizes. As a result, they could be oblivious to the fact that the single mattress they purchased has far fewer springs than specified.

We note that the width of single mattresses is 60% of the width of king size mattresses and 67% of the width of double mattresses. In the 15 pocket sprung mattresses assessed, just seven were near or above 60% of the number of pocket springs advertised, if a 5% margin of error is allowed in FIRA's estimates. Three were 56% of the number, three were 54%, one was 52% and one was 43%.

At the time of purchase, John Lewis' Simba single mattress was advertised with 836 springs, but the components analysis estimated 1,000 springs. In its product specifications it states that the mattress model features 2,500 springs, but makes it clear that this applies only to king size mattresses. We consider this to be fair and accurate product advertising, although the consumer should be given the spring count for each mattress size to make an informed purchase.

Two-thirds of the pocket sprung single mattresses had brand names that included the number of pocket springs, yet none were accurate. For example, Mattress World clearly advertised the "SleepShaper Backcare Pocket 1000" mattress as having 1,000 springs. However, the components analysis found that the single mattress contained just 434 springs - just 43% of the advertised number.

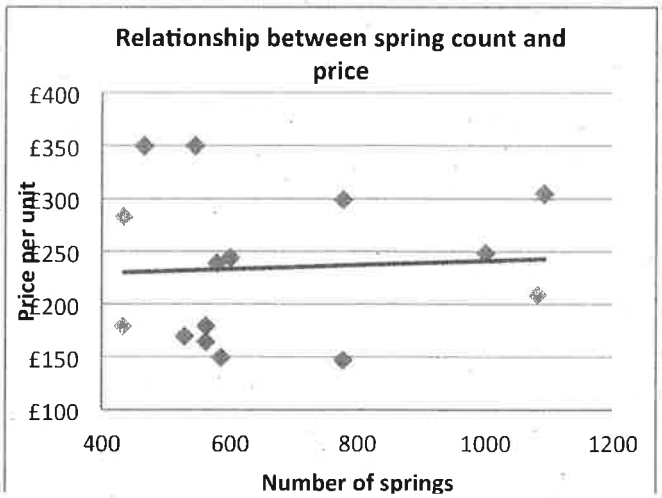
The significant inconsistencies meant that some mattresses sold as having 1,000 springs did not have many more springs than those sold as having 800. For example, Dreams sold the "Sleepeezee Arundel Pocket Sprung" mattress as having 800 when it had 528 springs, while Bedstore sold the "Bedmaster Majestic 1000 Pocket" as having 1,000 springs when it had 544. A consumer would assume that the 1,000 spring mattress would have 25% more springs than the 800 spring mattress, but in this comparison the difference is just 3%.

Table: Pocket sprung mattress spring count and price

Retailer	Manufacturer	Mattress	Springs advertised	Analysis results	Per cent of advertised	Price
John Lewis	n/a	Simba	836	1000	120%	£399
MattressNextDay	Dreamland	Springking Grand Luxe	Up to 1,500	1092	73%	£170
Dreams	Sleepeezee	Sleepeezee Arundel Pocket Sprung	800	528	66%	£249
Mattress Online	Myers Beds	Myers My Super Memory 1000 Pocket	1000	600	60%	£283
MattressNextDay	Hyder Beds Ltd	Tencel Pocket Ortho 1000	1000	585	59%	£239
Mattresses World	Shire Beds	Pocket Shire Balmoral	1000	578	58%	£180
Bensons For Beds	n/a	Canterbury Backcare Comfort	800	465	58%	£350
Mattress Online	Sweet Dreams Ltd	Sweet Dreams Elise Memory Pocket 1000	1000	561	56%	£210
MattressNextDay	Millbrook Beds Ltd	Millbrook Ortho Pocket 1000	1000	561	56%	£180
MattressNextDay	Rest Assured	Rest Assured Pocket Ortho 1400	1400	777	56%	£245
Mattresses World (Worldstores)	Airsprung Beds Ltd	Orchid 800 Quilted Pocket	800	435	54%	£147
Bedstore (Worldstores)	Bedmaster	Bedmaster Majestic 1000 Pocket	1000	544	54%	£165
Bedstore (Worldstores)	Delux Beds	Nicole 2000 Pocket Damask	2000	1080	54%	£299
Mattress Online	Health Beds Ltd	Healthbeds Memory Med 1500 Pocket	1500	777	52%	£305
Mattresses World (Worldstores)	The Foam Company	SleepShaper Backcare Pocket 1000	1000	434	43%	£150

Note: prices are rounded to the nearest pound and include any retailer discount at the time of purchase

Across the same price point, we found a wide variation in spring counts ranging from 434 to 1,092, indicating that one pocket sprung mattress can have over 150% more springs than another for

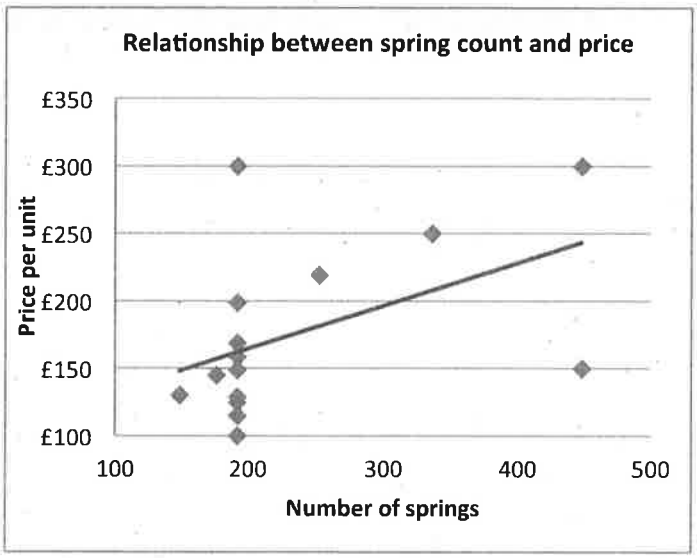


around the same price. While retailers and manufacturers may argue that other fillings add further comfort, it is our observation that spring counts are the primary selling point of a pocket sprung mattress.

Given that customers are guided to believe that the number of springs is measure of comfort in pocket sprung mattresses, accurate spring counts are crucial to enable consumers to make informed purchases. We also found that there was a negligible correlation between unit price and the number of springs. Consumers have no way of knowing whether paying more for a pocket sprung mattress will ensure they will get a product that has a greater number of springs than a cheaper mattress.

Open Coil

Most mattresses in the open coil segment were not sold on the basis of the number of springs. Consumers buy open coil mattresses for their relatively low cost. Qualitatively, they are also looking for firmness and lighter weight compared to pocket sprung mattresses. For added comfort, they will look at toppings such as memory foam. We have made no judgement on whether one form of topping is qualitatively superior to another, which we believe is likely to be the subjective assessment of the user.



Nine of the 15 mattresses had 192 springs, indicating that this is a standard number for single mattresses at the price point we studied. Two mattresses contained fewer than 192 springs and four had more than 192. The Silentnight brand topped the table for open coil mattresses with two mattresses in joint first place with spring counts of 448, which is over 130% more than the 192-spring norm. Sealy's Sandringham Backcare 2016 came second with a spring count of 336, followed by the Pirelli Series 200 with 252 springs.

There was some correlation between the spring count and price, but within the 192-count norm prices ranged from £100 to £400 per unit. If quality is based on cost per spring, the top three mattresses provided better value than the average of the 192-spring standard. While mattresses with 192 springs cost the consumer an average of £0.84 per spring, the Silentnight mattresses the cost was £0.67 and £0.33 respectively while the Sealy mattress cost £0.74. Retailers and manufacturers may claim that higher priced mattresses with lower spring counts reflect the added value comes from more superior toppings, construction and ticking. However, the components analysis did not find a significant difference that would justify putting 192-spring count open coil mattresses at the same price point as those with higher spring counts.

John Lewis was the only retailer in this segment that provided an accurate spring count. For the "Silentnight Firm Comfort Mattress", Bensons For Beds states that the 750 spring count applied only to the king size but did not give an indication of the number of springs for a single mattress. FIRA's analysis found there were 448 springs, which is what we would expect on the basis that a single size mattress is 60% of the width of a king size. We note that Bensons For Beds also sold a "Sandringham Backcare 2016" mattress, which it described as having a "posturetech 620 spring system". It was unclear whether the number referred to the number of springs or the name of the system; FIRA's analysis found there were 336 springs.

All other open coil mattresses did not advertise the number of springs they contained, including those that had more than twice the 192-spring norm.

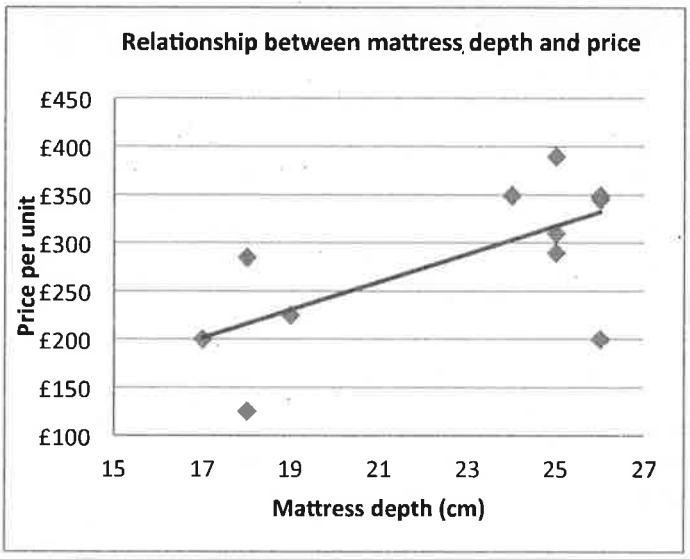
Table: Open coil mattress spring count and price

Retailer	Manufacturer	Mattress	Springs advertised	Analysis results	Price
Bensons For Beds	Silent Night	Silentnight Firm Comfort	750 (king size)	448	£300
Mattress Online	Silent Night	Silentnight Moretto Miracoil	n/a	448	£150
Bensons For Beds	Sealy	Sandringham Backcare 2016	n/a	336	£250
Mattress Online	Sleepeezee	Pirelli Series 200	n/a	252	£220
Bensons For Beds	n/a	Cleo Mattress	n/a	192	£300
Dreams	n/a	Fenton Traditional	n/a	192	£149
John Lewis	n/a	John Lewis Open Spring Memory Foam	192	192	£199
Mr Mattress	Time Living	Time Living Emerald	n/a	192	£129
Mr Mattress	n/a	Mr Mattress Zodiac	n/a	192	£159
Mr Mattress	Highgate Beds Ltd	Highgate Emerald	n/a	192	£169
Bedstore (Worldstores)	Sareer	Sareer Matrah Cool Blue Memory Coil	n/a	192	£125
Mattress Online	n/a	Classic Gold Ortho	n/a	192	£115
Mattress Online	La Romantica Beds	La Romantic Serenade Ortho	n/a	192	£100
Mattresses World (Worldstores)	Vogue Beds Ltd	Vogue Response Delia Ortho Coil Sprung	n/a	176	£145
Mattresses World (Worldstores)	Hyder Beds Ltd	Hyder Dual Density Coil	n/a	148	£130

Note: prices are rounded to the nearest pound and include any retailer discount at the time of purchase

Spring Free

The main component of spring free mattresses is polyurethane foam, often accompanied by a layer of memory and/or latex foam. Memory foam provides **pressure relief** and **comfort**, whereas latex provides a hygienic, firm and durable layer.



We found a strong relationship between mattress depth and price, signifying that consumers can expect to pay more for a mattress with more material. Higher priced mattresses tended to come with layers of memory or latex foam, which are added to provide extra comfort. Our analysis found that the greater the amount of memory or latex foam, the more expensive the mattress. The close correspondence between price and materials indicates that value is tied to quality. In some cases, retailers failed to advertise the level of memory or latex foam, but this was not evidence of misselling.

Retailers often attempted to add value to standard components such as polyurethane by giving them distinctive technical names. FIRA's analysis only examined the material composition of each layer and did not assess their subjective qualities or uniqueness.

Nine out of 12 mattresses had accurate descriptions of content and were within 1cm of their depth/height specification. Hyde & Sleep advertised its mattress as containing a layer that "combines the comfort and feel of latex & memory foam in one layer. This means you get the extra 'bounce' you would feel from latex, as well as the moulding benefits of memory foam." However, FIRA's analysis found just a 2cm layer of memory foam with no latex component.

Two other mattresses with significant differences from their advertised specifications were deeper by 2cm and 3cm respectively. The Lurex Ortho lacked description of its internal components on the MattressNextDay website, other than stating it has a 10 inch (24cm) layer of pure reflex foam. FIRA's analysis found that it was 26cm in depth, including 23cm of polyurethane foam, a layer of coil springs and polyester fibre wadding on the top and bottom. The One by Made mattress was 3cm deeper than described due to a deeper polyurethane foam layer, but its layers of memory and latex foam were accurately described at around 2.5cm each.

Table: Spring free mattress depth and price

Retailer	Manufacturer	Mattress	Depth (cm)	Analysis results (cm)	Difference (cm)	Price
Leesa Sleep Ltd	n/a	Leesa	25	25	0	£390
Bruno Interiors GmbH	n/a	The Bruno	24	24	0	£350
Eve Sleep	n/a	Eve	25	24	-1	£349
Made.com	n/a	One by Made	23	26	3	£349
Hyde & Sleep	Breasley Pillows Ltd	Hyde & Sleep	25	26	1	£345
Mattresses World (Worldstores)	Visco Therapy	Anniversary Memory Support Revo Foam	25	25	0	£310
Bedstore (Worldstores)	A J Foam Ltd	Pureflex Latex Foam	25	25	0	£290
MattressNextDay	Relaxsan manufactured by Alessanderx S.p.a	Relaxsan Waterlattex Vision	18	18	0	£285
Next	Relyon	House Memory Foam	20	19	-1	£225
Bensons For Beds	Relyon	Easi Support Ortho	18	17	-1	£200
MattressNextDay	Hyder Beds Ltd	Lurex Ortho	24	26	2	£200
IKEA	n/a	Morgedal	18	18	0	£125

Note:.prices are rounded to the nearest pound and include any retailer discount at the time of purchase

Table: Spring free mattress value added components

Retailer	Manufacturer	Mattress	Memory foam (cm)	Latex foam (cm)	Value added as a proportion of content
Leesa Sleep Ltd	n/a	Leesa	5	0	20%
Mattresses World (Worldstores)	Visco Therapy	Anniversary Memory Support Revo Foam	5	0	20%
Made.com	n/a	One by Made	2.5	2.5	19%
Bedstore (Worldstores)	A J Foam Ltd	Pureflex Latex Foam	0	5	20%
Eve Sleep	n/a	Eve	4	0	17%
Next	Relyon	House Memory Foam	4	0	21%
Bruno Interiors GmbH	n/a	The Bruno	0	3	13%
Hyde & Sleep	Breasley Pillows Ltd	Hyde & Sleep	2	0	8%
MattressNextDay	Relaxsan manufactured by Alessandrex S.p.a	Relaxsan Waterlattex Vision	0	0.7	4%
IKEA	n/a	Morgedal	0	0	0%
Bensons For Beds	Relyon	Easi Support Ortho	0	0	0%
MattressNextDay	Hyder Beds Ltd	Lurex Ortho	0	0	0%

Research Findings: Delivery experience

In a highly competitive market, customer experience with deliveries can be crucial to brand performance. With consumers now able to use the internet to give their feedback, their experience can be crucial to a retailer's commercial success.

Cabinet Maker scored its customer experience based on the three factors: the speed of delivery, the quality of packaging and experience with the delivery. An average score was taken in cases where there were multiple deliveries. All mattresses were ordered from the same address in Cambridgeshire.

We ordered 42 mattresses online from 15 retailers. Our snapshot survey found independent, online-only retailers provided the best delivery service. Traditional High Street retailers lagged behind with longer delivery times. If our experience is representative of most customers, these weaknesses could help explain the rising market share of independents in the mattress market.

We note that this is not a scientific survey, but the result of our own experience and other buyers may experience a better or worse performance from the same retailers.

Table: Customer experience with deliveries

Supplier	Number of units	Number of deliveries	Timing	Packaging	Delivery	Average score
Bruno	1	1	5.0	5.0	4.0	4.7
MattressOnline	7	1	5.0	5.0	4.0	4.7
MattressNextDay (owned by Bedsonline.biz)	6	1	5.0	5.0	4.0	4.7
Leesa	1	1	5.0	5.0	4.0	4.7
Hyde & Sleep (division of Dreams)	1	1	4.0	5.0	4.0	4.3
Eve Sleep	1	1	4.0	5.0	4.0	4.3
Made.com	1	1	5.0	5.0	3.0	4.3
John Lewis	2	1	3.0	5.0	5.0	4.3
Bensons For Beds (Homestyle Operations)	5	3	3.0	5.0	4.0	4.0
Next	1	1	3.0	5.0	4.0	4.0
IKEA	1	1	3.0	5.0	2.0	3.3
Dreams	2	1	2.0	5.0	3.0	3.3
Bedstore (Worldstores)	4	1	4.0	1.0	4.0	3.0
Mr Mattress	3	2	1.5	5.0	2.0	2.8
Mattresses World (Worldstores)	6	2	3.0	1.0	3.0	2.3

Note: scores out of five

Time to deliver

The length of time to deliver a mattress varied considerably between retailers. Bruno and MattressOnline were able to deliver the next day, while Leesa, MattressNextDay and Made.com took two days from the time of purchase. Hyde & Sleep, Eve Sleep and Bedstore also made their deliveries in under five days. However, traditional High Street retailers performed less well with John Lewis, Bensons For Beds, Next and IKEA delivering mattresses in seven to eight days. We received three deliveries from Bensons For Beds which took one, eight and 16 days to arrive respectively. Mattresses World made two deliveries, one of which took five days and the other 12 days. Mattresses ordered from Dreams and Mr Mattress took two weeks or more to arrive.

Packaging

The quality of packaging was good in most cases. Exceptions were Mattresses World and Bedstore which sent mattresses in dirty and dusty wrapping, which we believed were unacceptable to deliver to a customer's home. Both retailers are part of the Worldstores group.

Delivery experience

We found that customer experience with deliverers was generally adequate to good. However, problems with delayed deliveries required us to pursue retailers. Notably, Mr Mattress failed to deliver one mattress on the day stated but two days later and the customer experience with the carrier was poor. IKEA's carrier delivered the mattress to the wrong address, leaving it in a shed.

Conclusion

As mattresses are generally big ticket items that are purchased on average once every seven years, consumers cannot be expected to be experts in the qualities and safety of components. They rely on accurate information on product specifications and legal compliance. Our research finds that exaggerated product specification is an industry-wide problem with manufacturers and retailers driving by impressive marketing rather than informing consumers. In some cases, this could constitute a breach in regulations.

While marketing gimmicks are misleading, a greater concern is consumer safety. Consumers are not adequately protected by the law or the code of conduct of the industry's self-regulatory body. The government proposes to incentivise the reduction in the use of flame retardant chemicals while maintaining fire safety standards. As current standards are not being uniformly adhered to, any relaxation of fire retardant chemicals without increased regulatory enforcement could put consumers at greater danger.

We welcome the government's consultation paper, which aims to improve the information and traceability requirements for furniture and ensure accurate record-keeping throughout the supply chain. The retention of product records in a technical file is intended to aid Trading Standards in tracing a non-compliant product back to the point of manufacture.

In our view, technical data has to be relatively current, supported by a high frequency testing of components and finished products, but this only goes halfway to dealing with the problem. Technical files are only useful in fire safety compliance if they are examined and audited. Yet, Trading Standards enforcement that has so far only been evident in the high-profile prosecution of "van scam" mattresses, which is arguably far less of a problem than fire safety compliance of legal retailers and manufacturers.

Manufacturers and retailers need to take ownership of the problem of compliance in order to achieve high standards. They should be willing to subject their mattresses to random testing by independent agencies and take rapid action, including product recalls, to determine the cause of testing failures and where responsibility lies.

Most businesses in the mattress sector are conscientious about safety and three out of four mattresses we bought were fully compliant. Businesses that are diligent in achieving the highest standards need to be the champions of consumer rights in order to ensure quality and best practice are rewarded in an increasingly competitive market.

Appendices

In the domestic sector, there are two sets of legal requirements to be adhered to: general safety regulations and product specific regulations.[7]

General safety regulations

General safety regulations require BS 7177 to be applied to the finished product with labelling to show compliance. The relevant British Standard tests are smouldering cigarette (BS EN 597-1) and match flame (BS EN 597-2). Product specific requirements are also crucial to meeting BS 7177. Unless the fillings are "legal", any claim to compliance with BS 7177 is automatically rendered invalid. The tests determine the resistance to ignition of the products in their finished form and mattresses have to be labelled to show compliance with BS 7177. Compliance with BS 7177 entails provisions on sampling and frequency of testing.

Product specific requirements

Product specific requirements are detailed in Furniture and Furnishings (Fire) (Safety) Regulations 1988, amended 1989, 1993, 2010. These require mattresses to be made of fillings that resist ignition. It is an offence under the General Product Safety Regulations 2005 to supply products that are unsafe.

Under Schedule 2, Part IV of the Furniture and Furnishings (Fire) (Safety) Regulations, the procedure for testing the ignitability of composite fillings requires that:

1. The test specimen is prepared as set out in BS 6807. It may be constructed from the filling materials to be used or by removing existing ticking from a mattress or upholstered divan or bed-base.
2. The test fabric shall be made of 100 per cent flame retardant polyester fibre, woven to a plain weave, and shall be scoured and heat set; the regulation sets out the warp and weft of the yarn.
3. The test shall be carried out according to Section Four of BS 6807 using ignition source 2 as specified in BS 5852: Part 2. Smouldering or flaming failure shall be as defined in BS 5852: Part 2.

Safety compliance with BS 5852 stipulates the test requirements for various foam and non-foam fillings. Any samples that fail the product-specific tests automatically fail to satisfy the requirements of BS 7177.

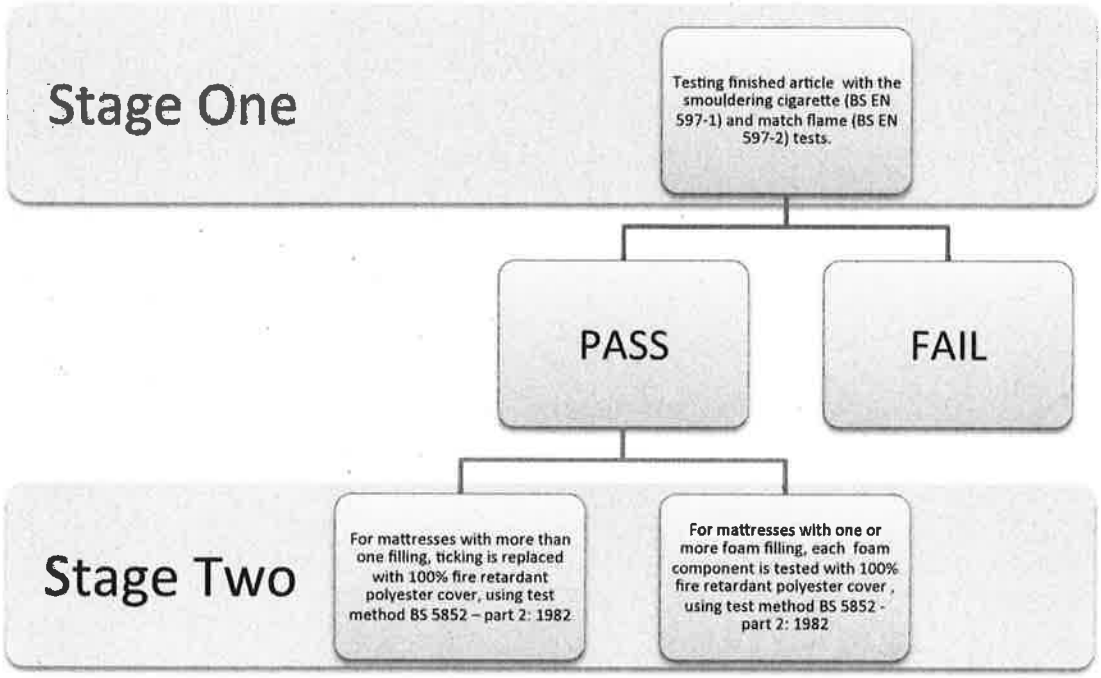
[7] "Flammability of Beds, Sofa-Beds and Headboards: A Summary of the Legal Framework", National Beds Federation

Product Specific Regulations	
Filling	**Requirement**
Polyurethane foam, whether as the only filling or as part of a composite	Must be combustion modified to satisfy test requirements in Schedule 1, Part 1 of Regulations: ignition source 5 of BS 5852: Part 2, using specified cover
Latex foam	Must satisfy test requirement in Schedule 1, Part 3 of Regulations: ignition source 2 of BS 5852: Part 2, using specified cover
A single non-foam filling	Must satisfy prescribed test requirement in schedule 2, Part 1: ignition source 2 of BS 5852: Part 2, using specified cover
More than one filling (composite)	Either (a) each separate filling has to be tested individually or (b) application of the prescribed test for composite fillings: Schedule 2, Part 4. (ignition source 2 of BS 5852: Part 2 using BS 6807 as the method). In the case of (b), where foam is part of the composite, it must be "combustion modified".

Methodology

Our testing methodology involved a two stage process, carried out independent by FIRA, in order to ascertain compliance with and BS 7177. All mattresses were conditioned in controlled conditions before testing in order to ensure that testing was fair and accurate.

In the first stage, the finished mattresses was tested with the smouldering cigarette and match flame tests stipulated in BS 7177. If this stage was passed, the mattress would go onto a second stage. For mattresses that contain one or more types of foam, each foam component was covered with a 100% fire retardant polyester covering using the BS 5852 – part 2: 1982 test, which is a more intense flame test than the match flame. For mattresses with more than one type of filling, the ticking was replaced with a 100% flame retardant polyester and the BS 5852 – part 2: 1982 test was carried out.


Stage One
Testing finished article with the smouldering cigarette (BS EN 597-1) and match flame (BS EN 597-2) tests.
PASS
FAIL
Stage Two
For mattresses with more than one filling, ticking is replaced with 100% fire retardant polyester cover, using test method BS 5852 – part 2: 1982
For mattresses with one or more foam filling, each foam component is tested with 100% fire retardant polyester cover , using test method BS 5852 - part 2: 1982