



Mattresses

Well-being through comfort



ESSENTIALLY BETTER

Optimal positioning for every care situation

Modern hospital and care beds with high-quality mattress bases provide support for users, patients and residents. Individual health-promoting positions can be effortlessly set. In order to make the very best of these beds, we recommend the use of topclass mattresses that are perfectly matched to our bed models.

The Stiegelmeyer Group's portfolio includes a wide range of mattresses for different needs. The recommendations of experts are of central importance when it comes to selecting mattresses and mattress replacement systems whose design is based on the latest scientific research and takes into account crucial criteria such as the underlying medical condition of the patient. The specific pressure sore category required varies according to each individual case. Decisions should therefore always be made carefully and according to the specific needs of the patient or resident. The priority here is always to maintain and promote mobility.



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Z1 – Sky-therm®

- with wavy cut
- · Excellent point elasticity due to lattice of the Sky-therm[®] layer
- The wavy cut protects problem areas of the body and increases mattress flexibility

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S1 -



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P1 -**Prevention mattresses** made of visco foam

- Strong visco foam layer ensures beneficial pressure distribution
- · Edge zone reinforcement for greater protection and mobility Page 10

Heavyweight mattress

• 3-layer mattress for heavier users

made of cold foam

ventilation

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P2 -**Prevention mattresses** made of visco foam

- lower weight
- Page 10



U1 -Universal mattress made of cold foam

- 12 cm breathable cold foam for excellent lying comfort
- Rhombo-therm[®] perforations for good · Available with a PU cover, or with an evacuation cover

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Z2 – Soft-therm

with fine perforations

• Highly elastic soft-therm layer

· Fine perforations in the base layer enhance the flexibility of the mattress and improve the microclimate



TEMPUR-MED

Premium mattress

- TEMPUR[®] foam reacts to body weight and temperature
- High specific density with maximum dimensional stability for more comfort and durability

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• High quality despite lower height and

· Edge zone reinforcement for greater protection and mobility



C1 -**Comfort mattresses** made of visco foam

- Visco foam layer with perforations for moisture wicking
- Strong basic layer made of cold foam

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U2 -Universal mattress made of polyether foam

- 12 cm hard-wearing polyether foam
- · Incisions on the underside for greater flexibility

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Density: 40/40 kg/m³ Compression hardness: 2.0/4.0 KPa

Z1 – Sky-therm[®] mattress with wavy cut





tion than cold foam.

In the Fowler position, Skytherm[®] ensures significantly more even pressure distribu-



To protect against pressure ulcers, it is crucial to distribute pressure evenly over the body when lying down and to reduce pressure peaks on the buttocks or heels. Many types of viscoelastic foam achieve good results here, but at the same time reduce the mobility of residents and patients through low flexibility. The user sinks into the layer of foam and is no longer able to move effortlessly. Our Sky-therm[®] mattress offers a convincing solution to this problem - and at the same time adapts very well to every adjustment of the mattress base.

Sky-therm® is a foam that ensures even pressure distribution and also facilitates users' movement thanks to its excellent resilience. With Sky-therm®, the skin remains well supplied with blood and is in full contact with the flexible mattress surface. A permanent exchange of heat and moisture can then take place.

The mobility and well-being of the user are promoted when it is easier to move in bed and also to get up. In hospitals, early patient mobilisation has a major impact on recovery.

Perforations for flat pressure distribution and generous air circulation

Special **perforations** lend the Sky-therm[®] layer additional point elasticity. The entire foam surface is designed with horizontal and vertical incisions, excluding only the edge zones to ensure greater stability. These perforations according to the Rhombo-therm® principle also ensure good ventilation and a dry and healthy sleeping climate.

The Sky-therm[®] layer and the cold foam mattress base lie on top of each other in the form of a wave. This wavy cut creates a 7-zone mattress. Parts of the body particularly at risk of pressure ulcers rest on zones with a thicker Sky-therm® layer. At the same time, the wavy cut is divided so that the mattress precisely follows the contours of the mattress base in all frequently raised positions. The health-promoting effect of the Fowler or cardiac chair positions can unfold its full potential. Even in these positions, the user is optimally protected against pressure points.

The edge zone reinforcement of the mattress makes it easier for the patient or resident to stand up and sit down.

The incisions in the Sky-therm® 4 layer improve the point elasticity and ventilation of the mattress.







Dimensions (W x L x H)*: 87/90/97 x 200 x 12 cm

Z2 – Soft-therm mattress with fine perforations



The soft-therm material is similar to conventional visco foam in its pressure-distributing effect and also scores with its very high elasticity and tear resistance. Our soft-therm mattress contributes to effective pressure ulcer prevention without restricting the user's freedom of movement. At the same time, the material is breathable and creates a good microclimate.

Soft-therm

The soft-therm mattress follows every adjustment of the mattress base with its particularly high flexibility. This is due not just to the elastic top layer but also to the cold foam base, which is designed with perforations to allow greater movement.



In the Fowler position, the soft-therm mattress distributes pressure considerably more evenly to the back, buttocks and heels.





Perforations according to the Rhombo-flex[®] process

The base layer of the soft-therm mattress incorporates a fine grid of perforations according to the Rhombo-flex® process. These are fine circular incisions which are partly hollow and partly still filled with cold foam. Only the edges of the mattress remain untreated to ensure greater stability when standing up and sitting down.

The perforations reduce the surface tension of the base layer, so the entire mattress becomes more elastic and moulds itself more closely to the contours of the mattress base. It also promotes good ventilation of the soft-therm mattress.



Rhombo-flex[®]

A fine grid of perforations with different depths increases the elasticity of the cold foam layer.







Dimensions (W x L x H)*: 87/90/97 x 200 x 15 cm Density: 85/37 kg/m³ Compression hardness: 2.3/2.8-3.8 kPa

TEMPUR-MED[®] PRESSURE REDISTRIBUTING MATTRESSES AND PILLOWS

Premium mattress

TEMPUR[®] foam is a particularly high-quality material for healthy, relaxing sleep. When the US space agency NASA developed it in the 1970s, it was a much more dramatic task: The new viscoelastic foam was designed to protect people in aircraft accidents. TEMPUR[®] can absorb a person's fall from a height of 3 metres and returns to its original shape even when 90% of the foam is compressed.

With these properties, the TEMPUR-MED[®] Premium mattress today supports the prevention of pressure ulcers. This mattress is ideal for high demands. It is suitable for use in intensive care units and protects elderly and long-term patients. In the nursing home, the TEMPUR-MED® Premium mattress stands for unique sleeping comfort.





Open cell technology

TEMPUR[®] foam consists of spherical open cells that **permanently adapt** to the contours of the body. This distributes the pressure more evenly than with conventional polyurethane, whose irregular cell structure merely compresses under weight and quickly decompresses again.



TEMPUR[®] foam reacts to the **body temperature** and the **weight** of the user. The temperature is also higher in parts of the body exposed to greater pressures. In this case, the material becomes softer. The cells shift their position to adapt to the contours of the body. In cooler areas, the mattress stays firmer.

Fewer pressure points

With its viscoelastic cell structure, the TEMPUR-MED® Premium mattress distributes the pressure so evenly that local pressure peaks are reduced significantly compared to conventional mattresses. Pressure on the shoulder blades, buttocks and heels is relieved as a result.

Other mattresses

* Additional dimensions on request



P1, P2 – Prevention mattress made of visco foam

Bedridden patients require particular protection against the pressure caused by a prolonged lying position. Sandwich mattresses P1 and P2 are recommended to **support pressure ulcer therapy**. These mattresses consist of a cold foam base layer and a visco foam top layer. They adapt to body contours, distribute pressure evenly and allow sufficient air to reach the body. This creates a healthy microclimate, and prevents heat accumulation.

ESSENTIALLY BETTER Advantage of visco foam

In contrast to other types of foam, it remains in this position rather than immediately returning to its former shape due to counterpressure. Patients and residents therefore enjoy ideal long-term support. It also reduces strong pressure points.

Sinking into the visco foam dampens movements and generates pleasant warmth.



▲ When pressure or body heat is applied to viscose foam, it becomes softer and adapts to the shape of the body.



Density: 50/40 kg/m³ Indentation hardness / Compression hardness: 60N, 4.0 kPa



We have two prevention mattresses in our portfolio. The P1 model is particularly helpful in the fight against pressure ulcers; it features a 7 cm thick visco foam layer and a total thickness of 16 cm. The characteristics of model P2 are equally good, even though it is slightly flatter.

Both models feature edge zone reinforcement that offers patients greater safety and support when sitting on the side of the bed or during night-time movements in the bed. The reinforced mattress edge prevents the patient or resident from slipping off the bed or against the safety side.

Both prevention mattresses can be supplied with an elastic PU cover or an evacuation cover. In an emergency, the evacuation cover can be used to pull the mattress with the patient out of the building.





Dimensions (W x L x H)*: 87/90/97 x 200 x 12 cm Density: 60/40 kg/m³ Compression hardness: 2.8/4.0 kPa

* Additional dimensions on request

C1 – Comfort mattress made of viscose foam

A feeling of security can enhance recovery during a stay in hospital. In a nursing home, it is essential for residents to feel at home in their room and their bed. Our comfort mattress supports this feeling. It ensures well-being through good breathability and exceptionally comfortable materials.

Model C1 pampers patients and residents with a 9 cm thick base layer made of cold foam, and a 3 cm thick layer of visco foam, which perfectly adapts to the contours of the body. Multi-zone holes punched in the foam wick away moisture and provide better ventilation of the mattress core. This creates healthy, dry sleeping conditions.

Model C1 is available with a PU cover.



Dimensions (W x L x H)*: 87/90/97/100/120 x 200 x 16 cm Density: 80/60/50 kg/m³ Compression hardness: 2.6/9,0/5.0 kPa

S1 – Heavyweight mattress made of cold foam



Patients and residents with a very high body weight or a strong risk of pressure ulcers require special care and attention. The heavyweight mattress made by Stiegelmeyer helps to meet their requirements. With its combination of high-quality materials, it supports both their therapy and prophylaxis.

Model S1 offers great comfort for persons weighing up to 240 kg. The 16 cm thick mattress consists of 3 layers: Thanks to its high point elasticity, the upper layer made of Rhombo-therm[®] adapts to the contours of the body, and ensures the user's well-being. The middle layer made of firm and durable cold foam gives the mattress the necessary stability. The slightly more flexible cell structure of the base layer regulates heat and moisture in the mattress core.

* Additional dimensions on request

ESSENTIALLY BETTER Advantage of cold foam

Like other types of foam, cold foam is made of polyether, but unlike other types, it is produced without any being generated. It is more elastic and even more permeable to the air than visco foam due to its open-pore structure.

Cold foam adapts to the body's contours, but quickly returns to its original shape when the patient or resident moves. This active recovery behaviour maintains the freedom of movement of the user and promotes mobility. Cold foam mattresses relieve the strain on the spine and discs and also on the joints. They prevent back problems and enhance well-being.

The good aeration properties of the cold foam ensure a dry, hygienic microclimate.



Dimensions (W x L x H)*: 87/90/97 x 200 x 12 cm Density: 40 kg/m³ Compression hardness: 4.1 kPa



Dimensions (W x L x H)*: 87/90/97 x 200 x 12 cm Density: 40 kg/m³ Compression hardness: 4.2 kPa

* Additional dimensions

on request

U1, U2 – Universal mattresses made of polyether foam

Universal mattresses made by Stiegelmeyer can be used flexibly for almost all healthcare applications. They consist of a single 12-cm foam layer, and are very comfortable to lie on thanks to their specific material properties.

Model U1 is made of polyether. The open-cell material features outstanding ventilation properties and therefore also good moisture wicking. The mattress is available with a PU cover, or with an evacuation cover.

Model U2 is made of polyether foam. Incisions on the underside allow the mattress to adapt particularly well to the 4-section mattress base of a hospital bed or care bed. Thanks to their compression hardness, these mattresses also offer sufficient support when occupants sit on the edge of the bed or get out of bed. In addition to good support when sitting on a mattress, other aids for helping occupants get out of bed - such as safety side elements - are also useful and to be recommended.

Technical data

	Sky-therm [®]	Soft-therm	TEMPUR [®] Premium	P1	P2
Dimensions (W x L) ¹⁾	87 x 200 cm 90 x 200 cm 97 x 200 cm	87 x 200 cm 90 x 200 cm 97 x 200 cm	87 x 200 cm 90 x 200 cm 97 x 200 cm	87 x 200 cm 90 x 200 cm 97 x 200 cm	87 x 200 cm 90 x 200 cm 97 x 200 cm
Height	15 cm	12 cm	15 cm	16 cm	14 cm
Composition	Cold foam base, Sky- therm [®] top layer, in different thicknesses	2 cm soft-therm 10 cm cold foam	7 cm TEMPUR® visco foam 8 cm cold foam	7 cm visco foam, 9 cm cold foam	5 cm visco foam, 9 cm cold foam
Density	40/40 kg/m ³	55/40 kg/m ³	85/37 kg/m ³	50/40 kg/m ³	50/40 kg/m ³
Indentation hardness/ compression hardness	top layer: 2,0 kPa / base: 4,0 kPa (Sky-therm)	50 N top layer, 4.0 kPa base	2.3/2.8-3.8 kPa	60 N top layer, 4.0 kPa base	60 N top layer, 4.0 kPa base
PU cover	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Integrated evacuation cover	0	0	-	0	0
Reinforced support edges	\checkmark	-	-	\checkmark	\checkmark

	C1	\$1	U1	U2
Dimensions (W x L) ¹⁾	87 x 200 cm 90 x 200 cm 97 x 200 cm	87 x 200 cm 90 x 200 cm 97 x 200 cm 100 x 200 cm 120 x 200 cm	87 x 200 cm 90 x 200 cm 97 x 200 cm	87 x 200 cm 90 x 200 cm 97 x 200 cm
Height	12 cm	16 cm	12 cm	12 cm
Composition	3 cm visco foam, 9 cm cold foam	4 cm Rhom- bo-therm®, 2 x 6 cm cold foam	12 cm PU foam	12 cm PU foam
Density	60/40 kg/m ³	80/60/50 kg/m ³	40 kg/m ³	40 kg/m ³
Compression hardness	top layer: 2,8 kPa / base: 4,0 kPa (C1)	2.6/9.0/5.0 kPa	4.1 kPa	4.2 kPa
PU cover	\checkmark	\checkmark	\checkmark	\checkmark
Integrated evacuation cover	-	-	0	-
Reinforced support edges	-	-	-	_

 $\sqrt{=}$ Standard o = Available as an option -= Not available ¹⁾ Additional dimensions on request



The density measures the weight of one cubic metre of foam. RG50, for example, denotes 50 kilograms per cubic metre. A high density increases the lifespan of a mattress.



Health properties

The foams and PU cover material used for our mattresses are free of harmful substances - in accordance with the limit values according to STANDARD 100 by OEKO-TEX[®] – Class 1.



Compression hardness

Compression hardness is the pressure that must be applied to indent a foam block to 40%. It is expressed in kilopascal (kPa) or newton (N). The lower the compression hardness, the softer the foam.



Mattress cover

The covers of our high-quality mattresses are washable and free of harmful substances. For our mattresses, we use PU covers that comply with the Oeko-Tex Standard 100.



Pressure ulcer prevention

Our mattresses offer pressure-distributing options as a basis for repositioning and therefore play a useful part in situations ranging up to a high risk of decubitus, as well as in all decubitus therapies (stages I to IV).

How to select a suitable mattress

Bedridden patients and residents, and people with impaired mobility need special protection to prevent pressure sores when lying down for long periods. Choosing a suitable mattress or the right aids is only possible on the basis of user-specific factors and considerations.

For Stiegelmeyer, it is clear that no recommendations or pressure ulcer categorisations for individual mattress models are possible on the basis of testing and scientific findings alone. According to the recommendations of experts, certain decisions always need to be made on a case-by-case basis.

The mattresses in this range can therefore be used for all patients, regardless of pressure ulcer category – grades 1 to 4 – thanks to the combination of highquality foam components used and the diverse customisation options.

When selecting a mattress, the main priority is always to maintain and promote mobility (see EPUAP recommendations). Both of these factors have a huge impact on bodily functions and cognitive abilities. Movements in and out of bed need to be aided by using suitable mattresses.

For patients in a higher risk category and patients with medical requirements that make pressure ulcer prevention difficult or necessitate special bedsore prevention measures, the use of additional aids is recommended.

*You can find information on our Smartline Hybrid, ASX Digital and APM 440 alternating pressure systems in our separate brochures, or here: www.stiegelmeyer.com/en/hospital/mattresses/ alternating-pressure-systems/



Note: This is only a recommendation. Mattresses must be selected according to individual needs, on a case-by-case basis.

Sources: EPUAP/NPUAP/DNQP *Contraindications for use (see "Use for the intended purpose" in the operating instructions)



Hygiene and protection through innovative covers



Mattresses in the healthcare sector have to withstand particularly demanding hygiene challenges. Covers with a polyurethane (PU) coating are ideal for this purpose. They are easy to clean and breathable. The fabric resists bacteria, viruses and mites, as well as body fluids, grease, and commercial disinfectants. The mattress is therefore protected in all situations, and has a long service life.

An evacuation cover is a great help if bedridden and non-ambulant users need to be carried to safety quickly in exceptional emergencies. It has built-in fastening straps and transport handles; it also has sliding bands on the underside. The person in need of care can therefore be carried or pulled along on the mattress. The upper side of the cover is made of PU-coated knitted fabric while the underside is of PES fabric. The cover has a concealed zip on 3 sides. The covers are certified according to the Oeko-Tex 100 standard, are washable at up to 70° or 90° C, can be reprocessed in a vacuum-steam chamber, and are dryer-proof.

Please refer to our technical data sheets for detailed information.



Evacuation covers Safety at your fingertips





- Two straps secure the user in the event of evacuation.
- The mattress sides are equipped with handles all around.



▲ Sliding straps on the under-

mattress.

side make it easy to pull the



The integrated straps make it easy to lift the mattress off the bed. In an emergency, there is no time to lose during an evacuation. This is an issue particularly in nursing homes, since a number of residents may be bedridden, and thus immobile.

Our **evacuation mattresses** offer considerable advantages compared to the previously used evacuation sheets. They are time-saving and convenient. Stiegelmeyer has fully combined the evacuation sheet and the mattress cover. This makes the evacuation sheet an inseparable part of the mattress and ensures that the person to be rescued can be safely transported out of the danger zone during an evacuation.

In a rescue situation, the stable and low-friction base sheet of the evacuation cover can be easily and safely dragged out of the danger situation over floors, tiles, carpets and stairs. Generously dimensioned **strap handles** on all sides of the mattress provide the necessary flexibility and withstand heavy loads. With two straps, the user is fixed in place and secured in the event of an evacuation – at the same time the straps pull the mattress into a protective U-shape. Integrating evacuation assistance fully into the mattress ensures that nothing slips or comes loose, and staff can therefore focus entirely on the rescue operation in hand.



Edge zone reinforcement for greater protection and mobility

Soft support mattresses, which can be used to both prevent and treat pressure ulcers, are made of special foam materials that can reduce the pressure on affected areas of the body. These so-called viscoelastic mattresses require edge zone reinforcement in order to keep their shape. These particularly stable zones can provide extra support and orientation for residents or patients when they sit up or get out of bed. The mattress does not yield too much.

The prevention mattresses and Sky-therm[®] mattresses have a 10-cm-wide edge reinforcement zone along both long sides of the bed. The compression hardness of the material in these zones is significantly higher, which promotes independent mobility and provides support when transferring the patient or resident.

▼ Structure of soft support mattresses with edge reinforcement:

- 1 Visco foam layer
- 2 Cold foam layer
- 3 Edge zone reinforcement



ESSENTIALLY BETTER Advantage of edge zone reinforcement

Without edge support, the mattress would give way uncontrollably under load.

Edge zone reinforcement ensures that it remains stable; it supports users when they get up, and prevents them from inadvertently slipping sideways when lying down.





Safety side and mattress The best combination from a single source

Stiegelmeyer mattresses can be successfully used in all standard hospital beds and care beds. However, with their innovative features, they are best suited to our beds. The mattresses were matched with beds in **diligent tests**.

This applies, for example, to the various **safety side systems**. The space between the mattress and the safety side must not be too big, according to the standard: The test cone must remain on top of the gap (see image); it must not sink into the gap.

Bed extensions and Stiegelmeyer **mattress extension elements** precisely match their own mattresses. Thanks to this, even taller users can enjoy unrestricted comfort. As is so often the case, the best solution is to source products from the same provider, which benefits everyone.



Useful extras

to our mattress program

Furniture and beds for the comfort of a good hotel



▲ Our elegant wardrobes create a private atmosphere in resident and patient rooms.



▲ The smooth-running drawers of our chests of drawers offer space for storing the clothes and personal belongings of residents.



This may

you!

also interest

▲ The cosy wing chairs from the Luna series make every room more comfortable.



▲ Bedside cabinet, server, mobile companion for care or cleaning staff – the space-saving Quado fulfils many tasks.



▲ The Novacare ASX Digital alternating pressure system is used to prevent and to treat pressure ulcers. Details of further alternating pressure systems are available in separate brochures or on request.





Solutions for people who care

The Stiegelmeyer Group is Germany's leading manufacturer of medical beds for hospitals, nursing homes and homecare. With modern bedside cabinets, furniture and digital assistance systems, it is also an innovative provider of comprehensive solutions. The family-run company successfully develops offers for international markets in more than 100 countries.

- Our strengths:



- Product development at our Herford headquarters in Germany -
- production in four modern factories in Germany and Poland
- Factory in China for the Chinese market
- Subsidiaries and sales partners in many countries
- Top-class service with reliable spare parts supply
- Training and process optimisation for our customers
- Sustainable action with strong social commitment



Our values

Experienced

Human

- Reliable
- Solution-focused
 - **Open-minded**
- Confident

Our brands









Hauptsitz / Headquarters Deutschland / Germany Stiegelmeyer GmbH & Co. KG Ackerstraße 42 32051 Herford Phone +49 (0) 5221185-0 Fax +49 (0) 5221185-100 info@stiegelmeyer.com www.stiegelmeyer.com



info@burmeier.com

www.burmeier.com

 Hauptsitz / Headquarters

 Deutschland / Germany

 Burmeier GmbH & Co. KG

 Industriestraße 53

 32120 Hiddenhausen

 Phone +49 (0) 5223 9769 - 0

 Fax
 +49 (0) 5223 9769 - 090

France Stiegelmeyer SAS 16 Avenue de l'Europe Bâtiment SXB1 67300 Schiltigheim Phone +33 (0) 4 7238 - 5336 contact@stiegelmeyer.fr www.stiegelmeyer.fr

South Africa Stiegelmeyer Africa (PTY) Ltd. The Estuaries - Century City Cape Town, 7441 Phone +27 (0) 21 555 - 1415 Fax +27 (0) 21 555 - 0639 info.southafrica@stiegelmeyer.com www.stiegelmeyer.co.za Nederland / Netherlands Stiegelmeyer BV Peppelenbos 7 6662 WB Elst Phone +31 (0) 345 581 - 881 info@stiegelmeyer.nl www.stiegelmeyer.nl

Suomi / Finland Stiegelmeyer Oy Ahjokatu 4 A 15800 Lahti Phone +358 (0) 3 7536 - 320 stiegelmeyer@stiegelmeyer.fi Polska / Poland Stiegelmeyer Sp. z o.o. 86-212 Stolno Grubno 63 Phone +48 56 6771 - 400 Fax +48 56 6771 - 410 info.stolno@stiegelmeyer.pl www.stiegelmeyer.pl

China

Stiegelmeyer China Co. Ltd. Poly Center, No. 8 South Wenhua Road Dongping New Town, Shunde District 528300 Foshan Phone +86 757 29878710 - 0 info@stiegelmeyer.cn www.stiegelmeyer.cn



stiegelmeyer-group.com