

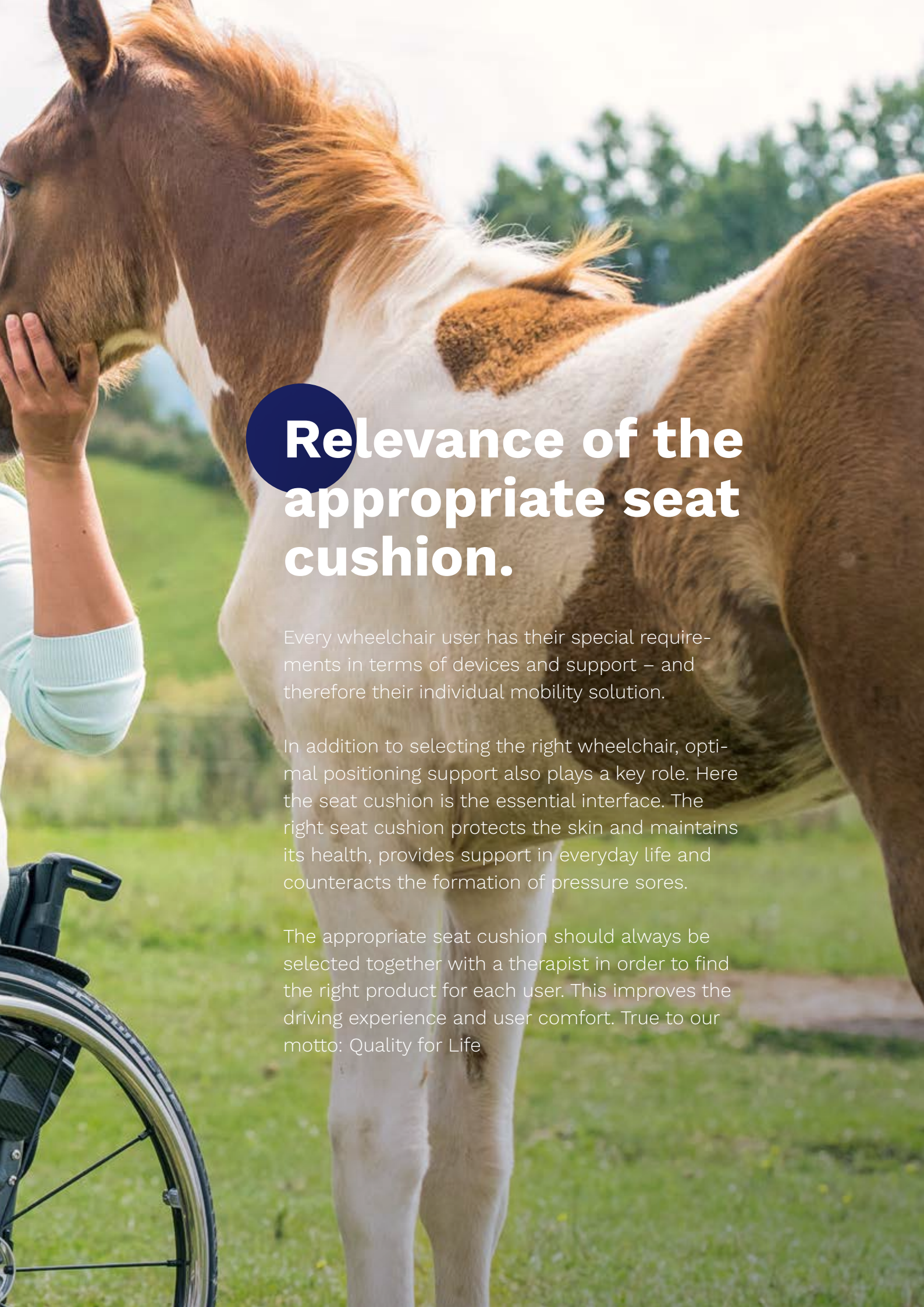
ottobock.

A man with glasses and a beard is sitting on a wheelchair, holding a black cushion. A woman with long brown hair is sitting on a white bench, holding a blue and yellow cushion. They are both smiling and looking at each other. In the background, there is a glass partition and another wheelchair.

Wheelchair seat cushions. Seating solutions for individual requirements.

Information for users



A person in a wheelchair is petting a brown and white horse in a grassy field. The person's hand is visible on the horse's face. The horse has a white body with brown patches and a brown mane. The background shows green trees and a clear sky.

Relevance of the appropriate seat cushion.

Every wheelchair user has their special requirements in terms of devices and support – and therefore their individual mobility solution.

In addition to selecting the right wheelchair, optimal positioning support also plays a key role. Here the seat cushion is the essential interface. The right seat cushion protects the skin and maintains its health, provides support in everyday life and counteracts the formation of pressure sores.

The appropriate seat cushion should always be selected together with a therapist in order to find the right product for each user. This improves the driving experience and user comfort. True to our motto: Quality for Life



ottobock.



Contents.

The Ottobock seating philosophy	6
Vanessa and her <i>Evolight</i> seat cushion	8
Anja and her <i>Terra</i> seat cushion	10
The role of the skin	12
Tips and tricks	13
Checked	14
Choosing the right seat cushion	17
The Ottobock Seating Molecule	19
Which seat cushion is right for you	20
Ottobock seat cushions	22
Other accessories	31

The Ottobock seating philosophy.

Unique, comfortable and individual.

In our view, each wheelchair user has unique, individual requirements regarding seating solutions. To accommodate users, we need customised solutions that allow different wheelchairs and seating systems to be combined. We always focus on the following points:

User comfort

Acceptance of the seating solution for static and dynamic applications

Functionality

Influence of posture on mobility, communication, field of vision, breathing, swallowing, etc.

Support

Essential for independence, mobility, comfort and well-being

Safety

Risk/benefit assessment for the user

Pelvis position

Effects on the position of the spine, neck and head

Foot position

Effects on the pelvic position

Postural stability

Effect of static and dynamic applications on positioning (navigating slopes/inclines, obstacles or as a seat in a vehicle)

Flexible malposition

requires optimal correction

Fixed malposition

requires optimal positioning and support

Muscle tone

Positioning affects muscle tone and reflex

Tissue tolerance

Ability of the skin to tolerate pressure, shear forces and microclimate without harmful consequences



Vanessa likes being active.

“I’m a very positive and sociable person, and open to trying out new things. I love tennis, and one day I’d like to play in tournaments again.”

For the love of sports

Prior to her accident, Vanessa took part in sports regularly and was an avid volleyball player. She still enjoys sports as much as ever and now plays wheelchair tennis. In addition to sports, she loves spending time with family and friends and travelling to distant countries, and these are the joys that motivate her every day afresh.

Vanessa chose the *Evolight* seat cushion for her everyday sports activities. The breathable seat cushion ensures optimal regulation of the microclimate, even during sweat-inducing activities. Thanks to its castellated structure made of highly elastic foam, Vanessa can rely on a high level of sitting comfort.



For further information on the *Evolight* seat cushion, see page 24.

Vanessa likes being active with her Avantgarde in combination with an Evolight seat cushion.



Anja loves stability.

Being as independent as possible is important to her. She is proud that she can do almost anything herself and rarely has to ask for help. The wife and mother from Chemnitz, who has been suffering from a progressive neuromuscular disease since childhood, manages a variety of voluntary counselling and care tasks in addition to her small family and her household.

Thanks to its numerous possibilities, Anja's Juvo guarantees her a high degree of flexibility in everyday life. But her *Terra* seat cushion also offers her a high level of sitting stability with its anatomically shaped seat surface and maximum sitting comfort thanks to the rest support foam.



For further information
on the *Terra* seat cushion,
see page 26.



Anja loves being independent with her Juvo combined with a Terra seat cushion.

“

There's no such thing as can't.

A high degree of independence is important to me. I'm proud to be able to do almost everything myself and only rarely have to ask for help.



The role of the skin and its importance for wheelchair users.

Various factors play a major role in selecting a seat cushion. In addition to a high level of sitting and driving comfort, care should be taken to ensure that the skin is well protected and that injuries can be prevented.

One of the most common problems with long periods of sitting or lying down is the formation of a pressure ulcer or pressure sore. Triggered by the permanent pressure of the underlay and a lack of relief, circulatory disorders in the skin and surrounding tissue occur. Friction and shear forces also shift the skin layers in opposite directions, causing significant damage to the skin. The result is often an ulcer. To prevent pressure sores, it is therefore important to consider the characteristics of the skin and provide appropriate care for it. The skin as the largest human organ not only performs numerous vital functions – it also protects the body from environmental influences.

Protective function

The skin forms a protective barrier against external influences such as UV radiation, dirt, heat or cold. In addition, it has a protective acid mantle that prevents the penetration of bacteria and germs.

Sensory perception

Nerve tracts in the skin make it possible to sense touch, temperature differences or pain and transmit them to the brain.

Control of body functions

The skin regulates the body temperature by narrowing or widening the blood vessels, and by producing cooling perspiration. At the same time, the skin protects the body from desiccation and thus regulates the water balance.

Skin care

Although there is no direct connection between the formation of pressure sores and skin care, healthy skin can prevent infections more effectively. Regular cleaning helps the skin to remove harmful substances, perspiration and dirt. It should be noted that frequent cleaning destroys the natural protective acid mantle and damages the skin in the long term. Scent-free soaps and lotions help prevent irritation and provide optimal skin care.

Tips and tricks

The seat cushion is a loyal companion for every wheelchair user. To enjoy it for a long time, regular cleaning is advisable. The cleaning instructions on the cushion must be strictly observed. These can be very different. Most cushions can be brushed gently or wiped with a damp cloth. Subsequent disinfection can prevent odours and germs. In contrast to the foam, many cushion covers are also removable and can be cleaned in the washing machine. A look at the instructions for use shows which washing instructions need to be followed and whether the cushion cover is suitable for the dryer.

Checked.

Experts around the world work every day to find the best possible seat cushion for every user. We asked what makes a good seat cushion and how to find it.

The cushion acts as the interface between the wheelchair and the skin. For users with spinal cord injuries, it protects the skin against pressure or shear injuries, prevents ulcers by redistributing pressure and improving the user's sitting posture. Cushions help in case of neurological disorders by improving the sitting posture and supine position.

Juan Pablo, physiotherapist from Colombia

Why do I need a good seat cushion?

One of the functions of a seat cushion is to protect the skin. Patients often lack sensitivity, and thus pressure sores can go unnoticed without visual inspection. Carers and therapists help to find the right seat cushion. The cushion undergoes thorough testing with regular skin checks before being prescribed. This approach lets you narrow in on the perfect seat cushion, step by step.

Klaudia, paraplegia therapist from Austria

There are several different cushion models since the human body of each user has completely different anatomical type.

Renata, occupational therapist from Brazil

Why are there so many models?

Every user's needs are unique, which is why the degree of injury and specific requirements for a seat cushion first have to be determined.

Judith, physiotherapist from Colombia

The choice of a seat cushion depends on the user's requirements. If there is a high risk of pressure sores, a high level of protection by a seat cushion with air chambers is required. A contoured foam cushion may be the right choice for users who require more stability and support.

Juan Pablo, physiotherapist from Colombia

Consultation by specialists who assess the respective needs for a seat cushion is generally recommended, taking into account the following aspects: The clinical picture, state of health, physical condition and general positioning requirements.

Fabiola, physiotherapist from Brazil

Which seat cushion is right for me?

The skin is the most important factor, and the skin type depends on the type of paralysis as well as individual physical characteristics such as sensitivity, perspiration, etc. Another crucial aspect is your level of paralysis and your day-to-day routine. Your hobbies can also play a role in the type of seat cushion prescribed for you. Don't forget that the wheelchair and seat cushion form a unit. The seat cushion influences the entire setup of the wheelchair. It's crucial that the cushion fits the seat width and seat depth of the wheelchair perfectly.

Klaudia, paraplegia therapist from Austria

It helps to take a look at yourself in a mirror while sitting in the wheelchair. Your sitting posture should be as upright as possible to protect your neck and shoulders. Viewed from the front, an equal amount of the back support should be visible on the right and left sides of your torso. The pelvis is the most important part and should be centred between the side panels of the wheelchair. The iliac wings should be at the same level and the rotation of the pelvis should be neutral; i.e., neither of the knees should project beyond the other when viewed from above. Different activities require different sitting postures. The pelvis can also be shifted forwards so you can use both hands in front of your body, e.g. when eating.

Klaudia, paraplegia therapist from Austria

How can I tell if I am sitting correctly?

Ideally, qualified personnel will check for correct positioning. Wellbeing and functionality during everyday activities also play a key role in ensuring a good sitting posture.

Fabiola, physiotherapist from Brazil

Medical staff such as therapists, doctors or seating technicians/experts can help here. They check the alignment and effect on the entire body. Head alignment is an important factor, as is comfort.

Tomoshi, physiotherapist from Japan

Unfortunately, yes. Pressure sores can still occur, even with a special seat cushion – for example, if the patient ignores red spots or skin damage, or fails to follow the instructions of nursing staff or the therapist. That's why it's essential to consistently monitor the skin situation. It's not the price of the cushion that is crucial, but the perfect fit.

Klaudia, paraplegia therapist from Austria

Could I still get a pressure sore even if I have a special seat cushion?

Yes, because the right one can only reduce the risk of pressure sores. In addition to the right seat cushion, there are other factors that can counteract the formation of pressure sores such as regular monitoring, skin hygiene and moisture and temperature control.

Simon and Yip Ka, occupational therapists from Hong Kong



Choosing the right seat cushion.

The demands they place on a seat cushion are just as varied as wheelchair users. In general, the right seat cushion supports the user's stability and can therefore contribute to increased mobility.

The right choice of seat cushion for the respective user depends on numerous factors such as the mobility grade, everyday use and ultimately personal preferences as well. In principle, the following seat cushion categories can be defined: Gel cushions, honeycomb cushions, relax foam cushions, air flotation cushions and module cushions. All types of cushions are characterised by various factors.

Gel cushions

mould themselves to the shape of the body, even when a person shifts in their seat. This means they provide excellent pressure redistribution, but they are also very heavy.

Honeycomb cushions

have the advantage of being more breathable. Some are lightly anatomically shaped.

Relax foam cushions

are similar to gel cushions and mould themselves to the user's shape when they shift in their seat, but weigh less. However, they have to be thick enough.

Air flotation cushions

are filled with air pockets, so they are less stable than other cushions and should only be used when there is a high risk of pressure sores. Cushions with multiple chambers have different air chambers that can be adjusted to correct the user's sitting position.

Module cushions

combine various elements, for example, foam/gel cushions. They can adapt to changes in body situations and are thus an alternative to a customised, made-to-order cushion.

Once the right seat cushion has been selected, it is important to ensure that the seat cushion is correctly positioned and cannot slip out of place prior to transferring to the wheelchair. Furthermore, the back pockets of the trousers should not be filled with things that could cause pressure or abrasion.

Finally, an optimal sitting position is usually not the sole responsibility of the seat cushion. It may therefore make sense to include additional support in the area of forearm supports, hand supports or head supports, depending on the user's needs.



Further information and help with selecting the appropriate seat cushion is found on the following pages.



The Ottobock Seating Molecule.

The Clinical Seating Molecule is a visual representation of the key factors that ought to be identified and prioritised in any optimal seating solution. All wheelchair cushions should be selected based on a prioritised combination of individual requirements. The guide rankings provided by each molecule in this brochure are designed to support, rather than replace, clinical reasoning when selecting between different Ottobock wheelchair cushions. Please note these rankings are not intended to imply any claim regarding the overall performance of Ottobock seat cushions compared with products of other manufacturers.

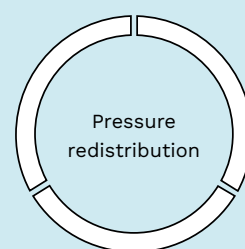
Key factors



Find out which seat cushion is right for you!

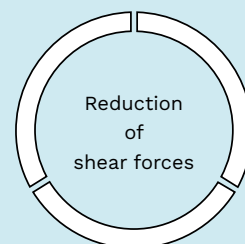
Pressure redistribution

1. Are you sensitive in the area of the buttocks?
2. Have you previously had wounds in the area of the buttocks?
3. Do you sit all day?



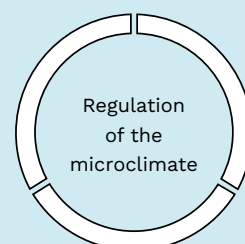
Reduction of shear forces

4. Do you need help changing your position in the wheelchair?
5. Do you need help adjusting your clothes after transferring to the wheelchair?
6. Do you often slide forward in your wheelchair?



Regulation of the microclimate

6. Do you have problems with the bladder or bowels?
7. Do you perspire a lot?
8. Do you live in hot or humid regions?



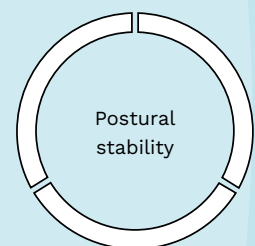
How to fill out the questionnaire

On page 19, we have presented the Ottobock Seat Molecule, which characterises the various features of our seat cushions. Now look at the questions and fill out a bar in the respective question category for each question answered with “Yes.” If the answer is “No” the bar remains empty. Finally, you can compare the completed molecules with the molecules of the seat cushions on the following

pages and find out which seat cushion is best for you. Don't hesitate to ask your specialist dealer or medical supply company for help with answering and matching. When answering the questions, there are no wrong or right answers, they are merely intended for orientation. Your personal assessment may also change daily, depending on your mood and situation in everyday life.

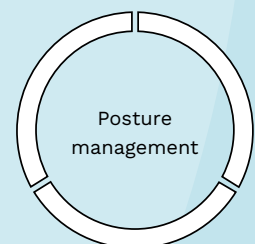
Postural stability

- 9. Are you able to sit in the wheelchair with an upright and straight posture for extended periods of time?
- 10. Can you correct your posture yourself?
- 11. Do you slide around a lot in your wheelchair?



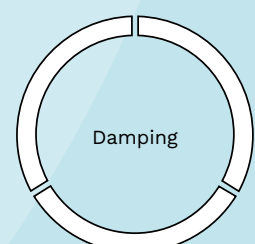
Posture management

- 12. Do you have to correct your posture frequently?
- 13. Will anything on your wheelchair be adjusted frequently?
- 14. Do you feel tired when sitting in a wheelchair for extended periods of time?



Damping

- 14. Do you use your wheelchair outdoors?
- 15. Do you propel the wheelchair yourself?
- 16. Is it easy for you to propel the wheelchair yourself?





Article no. 476C00=SK14*

Easy-care seat cushion

This seat cushion, which is made of high quality Visco foam* with combined HR foam**, is the perfect entry-level cushion. It is also ideal for geriatric use. Visco foam offers pressure redistribution properties, so it helps the seat cushion to absorb shock more effectively. HR foam has a coarse pore structure that supports air circulation. This helps to regulate the microclimate of the seat cushion. With impressively high quality, the seat cushion is also easy to care for. The seat cushion cover is washable at 60° and available separately.

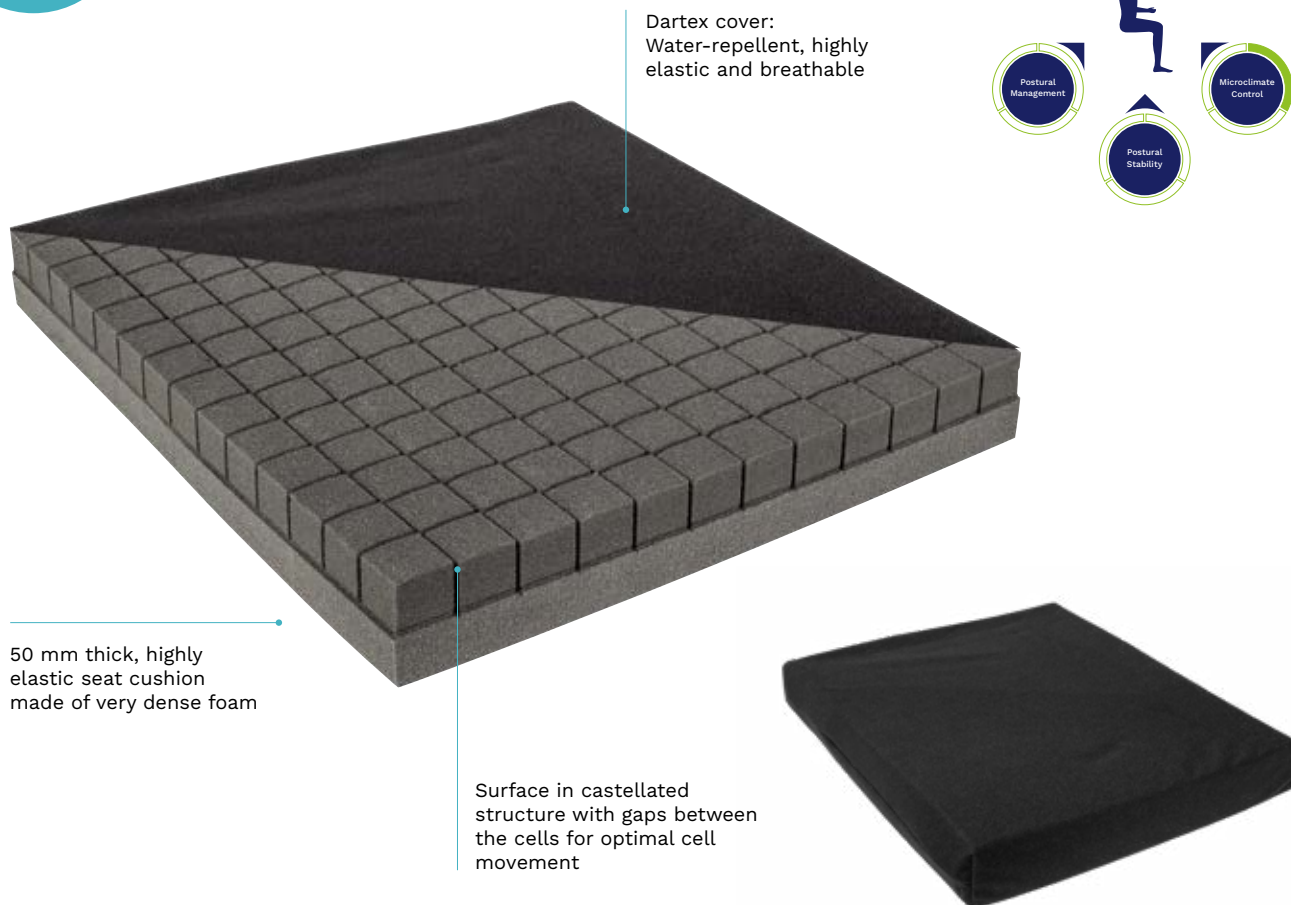
Features

- Easy-care PU cover:
 - Breathable
 - Removable cover
 - Cover washable at up to 60°
 - Can be disinfected
- High-quality double-layer foam core with an upper layer of Visco foam and a lower layer of HR foam
- Cover is easy to remove thanks to user-friendly zip
- Integrated incontinence cover
- Seat cushion height: 50 mm (15 mm upper Visco foam layer, 35 mm lower HR foam layer)
- Maximum load: 125 kg

* Visco foam offers pressure redistribution properties, so it helps the seat cushion to absorb shock more effectively.

** HR foam has a coarse pore structure that supports air circulation. This helps to regulate the microclimate of the seat cushion.

Cubic Foam.



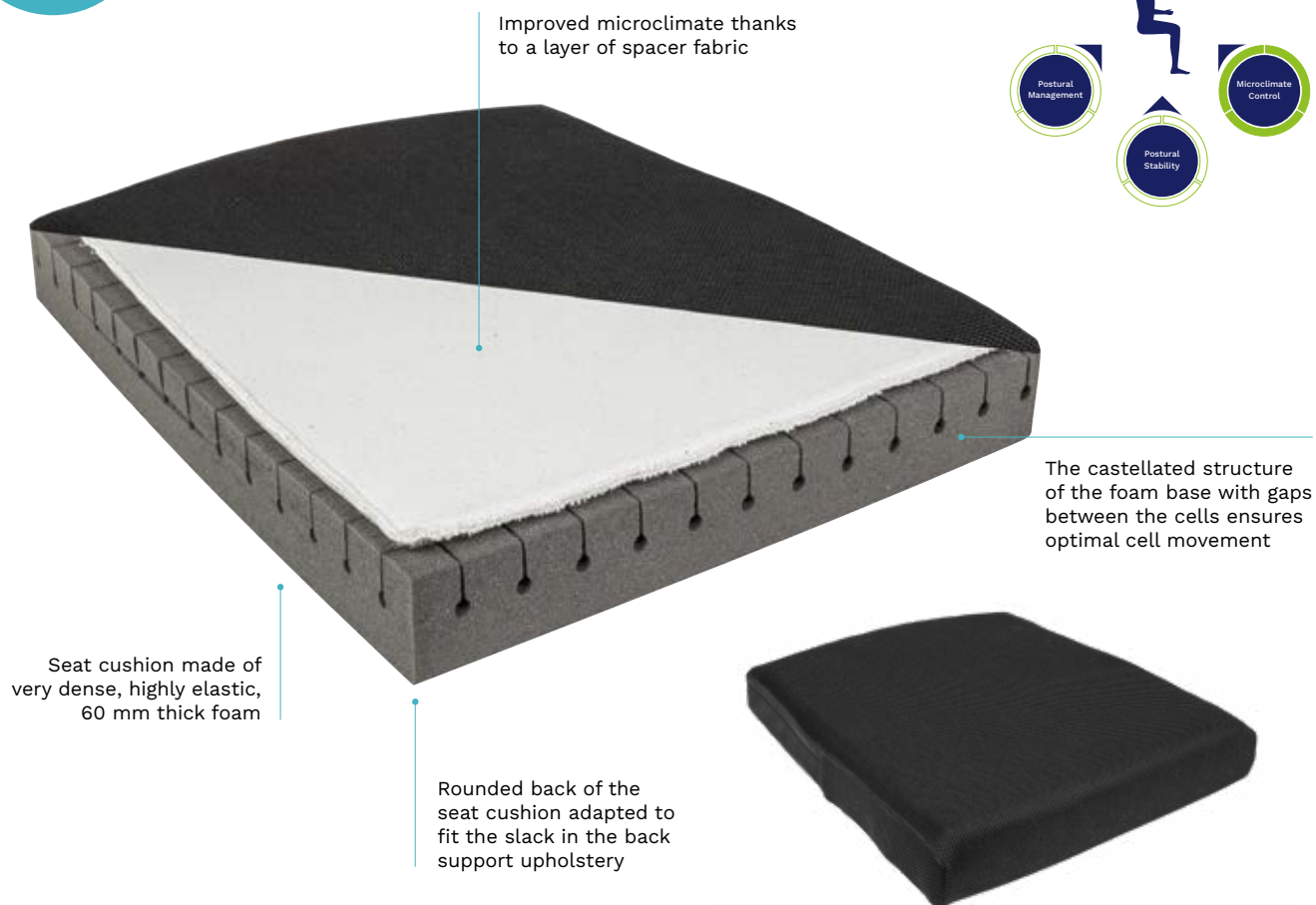
Article no. 476C00=SK100

Simple pressure redistribution principle

The *Cubic Foam* achieves maximum shear force reduction. Pressure redistribution is significantly improved thanks to the castellated structure: High comfort with a low seat height.

Features

- Seat cushion made of very dense, highly elastic foam
- Surface in castellated structure with gaps between the cells for optimal cell movement
- Seat cushion thickness: 50 mm
- Dartex cover (water repellent, highly elastic, breathable)
- Weight: 0.65 kg (400 x 400 mm)
- Max. load: 150 kg



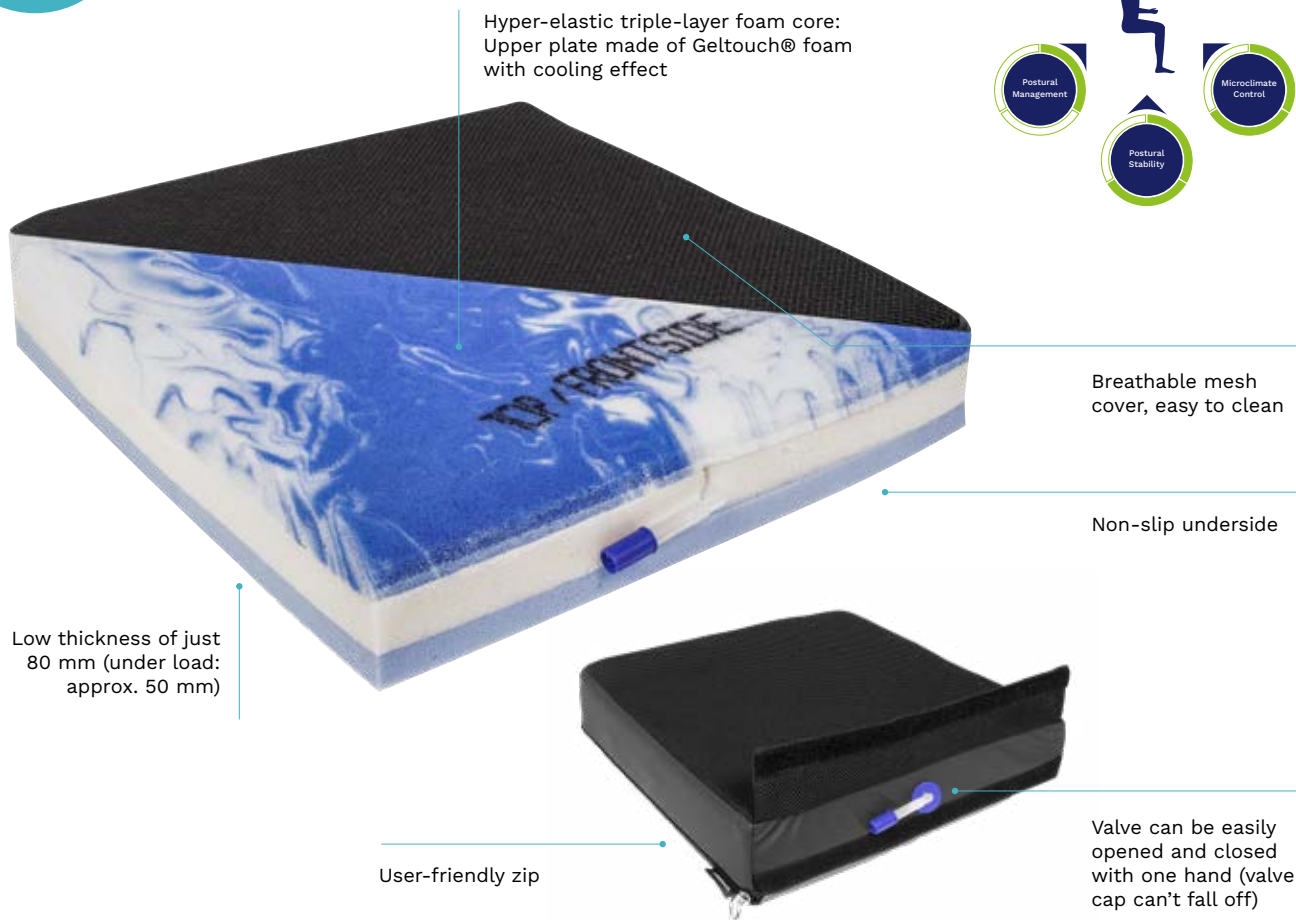
Article no. 476C00=SK350

Improved microclimate plus sitting comfort

This seat cushion is suitable for active users. The castellated structure improves pressure redistribution. The use of breathable spacer fabrics in the support and outer cover optimally regulates the microclimate. The *Evolight* seat cushion offers a high level of sitting comfort combined with a low seat height.

Features

- Seat cushion made of very dense, highly elastic foam
- The castellated structure of the foam base with gaps between the cells ensures optimal cell movement
- Improved microclimate thanks to a layer of spacer fabric
- Rounded back of the seat cushion adapted to fit the slack in the back support upholstery
- Outer cover with spacer fabric
- Seat cushion thickness: 60 mm
- Weight: 0.85 kg (400 x 400 mm)
- Max. load: 125 kg



Article no. 476C00=SK14*

The best of both worlds

The Ottobock *Evoflair* seat cushion is well suited for pressure sore prevention and therapy. It is a hybrid that consists of various elements – gel, Visco foam and air. These components ensure optimal pressure redistribution. The *Evoflair* is particularly popular among active wheelchair users. By the way: If air escapes, this does not have a major impact on stable sitting.

Features

- Tri-chamber seat cushion ensures optimal pressure redistribution
- Individually adjustable for ideal seating comfort
- No pump or other tools necessary
- No risk of failure due to self-inflating foam cell technology
- Quick and easy adaptation to external pressure conditions
- Cover can be easily removed and washed
- Can be thermally treated according to RKI guidelines
- Very light – weighs approx. 70% less than conventional air cell seat cushions
- Suitable for very active wheelchair users
- Maximum load: 200 kg



Article no. 476C00=SK6**

For more sitting comfort

The effective pressure redistribution of the *Terra* seat cushion is particularly well suited for users at moderate risk of pressure sores. Improved sitting comfort thanks to the shock-absorbing properties of the Rest Suspension foam contributes to high stability during activities and transfers.

Features

- Rest Suspension foam offers:
 - Excellent yielding and envelopment of the thighs and pelvis for effective pressure redistribution
 - Vibration and impact damping for improved sitting comfort
 - High level of postural stability
- Anatomically shaped seat surface:
 - Pressure redistribution to prevent pressure peaks at the ischial tuberosities
- Dartex cover (water repellent, highly elastic, breathable)
- Weight: 1.0 kg (400 x 400 mm)
- Max. load: 150 kg

Terra Aquos.



Article no. 476C00=SK6**

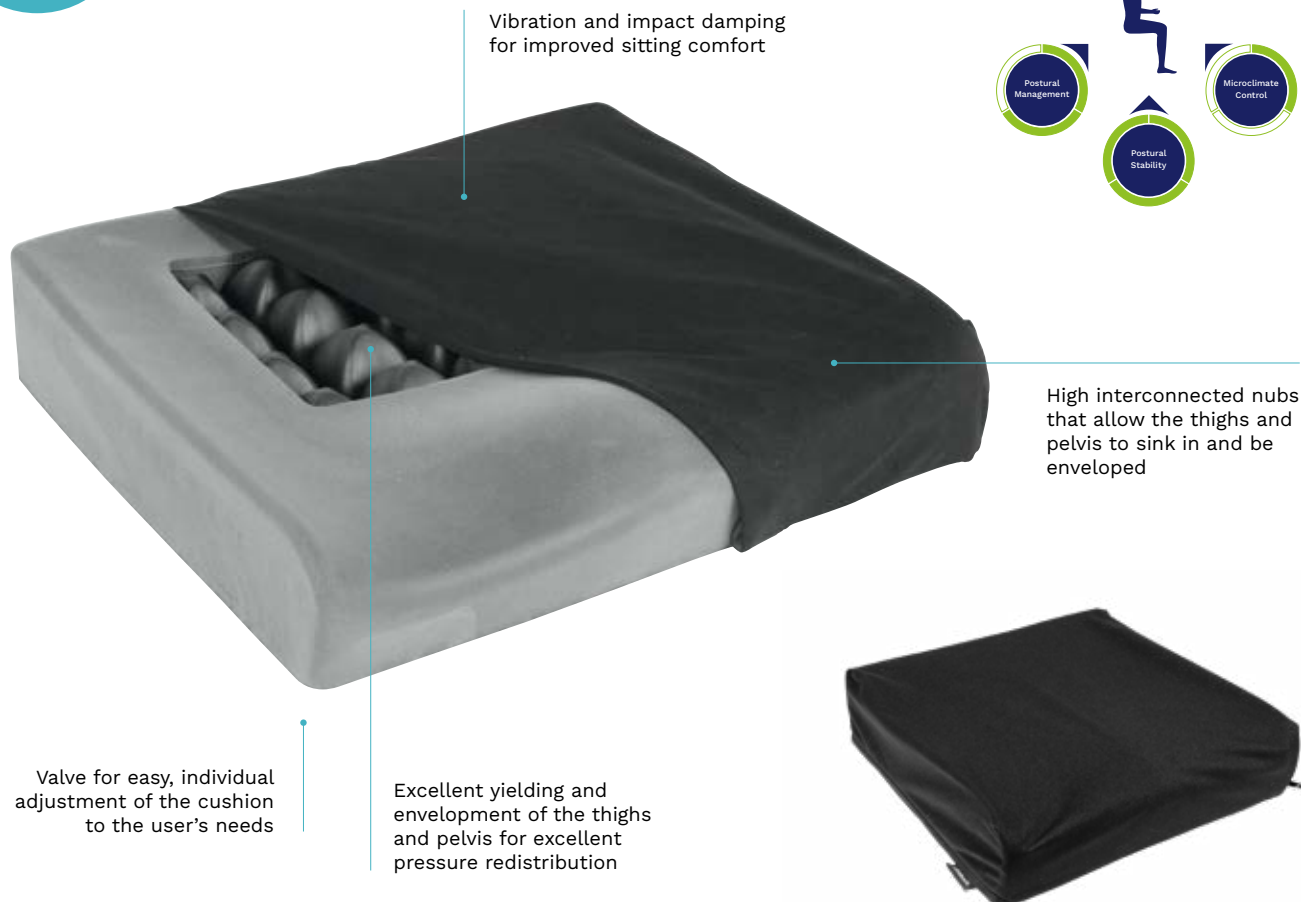
For comfort and reduction of shear forces

The *Terra Aquos* seat cushion provides effective pressure redistribution for users at moderate risk of pressure sores. Thanks to the four LiquiCell inserts, shear forces are also reduced to prevent pressure sores. The shock-absorbing properties, good postural stability of the Rest Suspension foam and the anatomically shaped seat cushion contour make the *Terra Aquos* seat cushion a daily companion.

Features

- Four LiquiCell inserts ensure excellent reduction of shear forces during activity
- Rest Suspension offers:
 - Excellent yielding and envelopment of the thighs and pelvis for good pressure redistribution
 - Vibration and impact damping for improved sitting comfort
 - Properties remain unchanged even after long-term use
- Anatomically shaped seat surface:
 - Pressure redistribution to prevent pressure peaks at the ischial tuberosities
 - Posture support
 - Symmetrical thigh positioning
- Dartex cover (water repellent, highly elastic, breathable)
- Weight: 1.2 kg (400 x 400 mm)
- Max. load: 150 kg

Terra Flair.



Article no. 476C00=SK8**

The ultimate air flotation cushion

Optimal pressure redistribution with adjustable air inserts makes the *Terra Flair* one of the best seat cushions. This is achieved by reducing shear forces to prevent pressure sores, high stability during activities and transfers, improved sitting comfort due to the interplay of air inserts (Rest Suspension foam) and good posture support thanks to the foam in the trochanter area.

Features

- Air insert:
 - 50 x 50 mm, 70 mm high interconnected nubs that allow the thighs and pelvis to sink in and be enveloped
 - Shear forces affecting the skin are minimised by the segmented surface
 - Valve for easy, individual adjustment of the cushion to the user's needs
- Rest Suspension offers:
 - Excellent yielding and envelopment of the thighs and pelvis for excellent pressure redistribution
 - Vibration and impact damping for improved sitting comfort
 - Properties remain unchanged even after long-term use
- Dartex cover (water repellent, highly elastic, breathable)
- Weight: 1.4 kg (400 x 400 mm)
- Max. load: 150 kg



Article no. 476C00=FFC*

Adaptable cushion for posture management and pressure redistribution

The *Cloud* seat cushion provides optimal pressure redistribution in the region of the ischial tuberosities, coccyx and trochanters. There are no restoring forces as with foam cushions. Further advantages include easy adaptation in case of pelvic asymmetries and outstanding stabilisation of the pelvis. The individual Floam cells ensure high stability, e.g. during transfers.

Features

- Four LiquiCell inserts ensure excellent reduction of shear forces during activity
- Rest Suspension offers:
 - Excellent yielding and envelopment of the thighs and pelvis for good pressure redistribution
 - Vibration and impact damping for improved sitting comfort
 - Properties remain unchanged even after long-term use
- Anatomically shaped seat surface:
 - Pressure redistribution to prevent pressure peaks at the ischial tuberosities
 - Posture support
 - Symmetrical thigh positioning
- Dartex cover (water repellent, highly elastic, breathable)
- Weight: 1.2 kg (400 x 400 mm)
- Max. load: 150 kg

Incontinence cover.



Article no. 476C00=SK4*

On the safe side

The incontinence cover is available for Ottobock seat cushions. It is easy to apply under all textile covers – directly around the foam – and thus protects the foam against dirt and liquids. The properties of the seat cushion are maintained.

Features

- Elastic, transparent plastic
- Water-repellent surface
- Easy to clean

Did you know?

In addition to the seat cushions, there are numerous different forearm supports, head supports, belts and much more.



Various head supports with easy-care rigid foam or comfortable soft foam cover.



Various straps for additional support and stabilisation of the upper body or pelvis.



Numerous forearm and hand supports offer additional support depending on the individual needs and ensure a relaxed driving experience.



Stylish Baxx aluminium back support in various heights, contours and colours.

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