

# polyurethane is quality

the multiple characteristics of  
flexible polyurethane foam

**Key Factors To Project  
The Sleeping Area**





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## Introduction

In each issue, “poliuretano is quality” presents one of the many characteristics of flexible polyurethane foam, a versatile material with many qualities that are enhanced in the various fields of application.

An in-depth knowledge of the intrinsic qualities of polyurethane is a fundamental factor for designers and manufacturers who can take full advantage of the many possibilities it offers in terms of performance and add new applications to the many already present in the industry. For those working in the world of distribution, deepening the knowledge of the material contributes to a more complete communication and sales strategy for products made of polyurethane. Thanks to interdisciplinary collaboration with leading Research Centres, leading Universities and experts in the field, each issue is an in-depth written study accompanied by drawings and images.

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Poliuretano-é represents an innovative and unique project of its kind, born in Italy 15 years ago by the will of some of the most important Italian companies in the production' sector of flexible polyurethane foam. Over the years to companies producers have also supported the project with a number of companies protagonists at international level in the production of additives and related raw materials to the production of flexible polyurethane. Poliuretano-é has carved out in recent years its own authoritativeness and a precise identity in the world of communication, production and design. Initially developed as a project oriented to improve the knowledge of the flexible polyurethane foam at the distribution operators, Poliuretano-é has progressively widened its range of action, involving in a way more and more companies producing industrial products in polyurethane, from furniture to packaging. Poliuretano-é promotes a wide range of initiatives for the dissemination of culture on the polyurethane material, which include the organization of exhibitions and themed presentations, conferences dedicated to deepen the different themes related to polyurethane, training meetings with retailers and the publication of research and documentation on the subject.

[www.poliuretano-e.it](http://www.poliuretano-e.it)

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Polyurethane é is promoted by the following leading companies in the polyurethane sector flexible foam:

### Promoters - Flexible polyurethane foam



[www.cires.it](http://www.cires.it)



[www.nir-spa.it](http://www.nir-spa.it)



[www.olmogiuseppespa.com](http://www.olmogiuseppespa.com)



[www.orsafoam.it](http://www.orsafoam.it)



[www.pelma.it](http://www.pelma.it)



[www.sip-srl.it](http://www.sip-srl.it)

### Supporters - Manufacturers of raw materials and additives



[www.covestro.com](http://www.covestro.com)



[www.evonik.com](http://www.evonik.com)



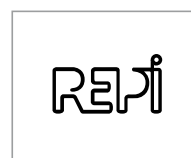
[www.borsodchem-group.com](http://www.borsodchem-group.com)



[www.dow.com](http://www.dow.com)



[www.huntsman.com](http://www.huntsman.com)



[www.repi.com](http://www.repi.com)



[www.shell.com](http://www.shell.com)

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## 4 fundamental factors to design the sleeping area

Ing. Marino Pietri - Materials Design Department – Milano

The correct design of a bedroom is based on a set of guidelines which are developed in order to guarantee the creation of a comfortable and functional place, able to enhance the qualities of the materials and the products adopted, starting with the mattress and pillows.

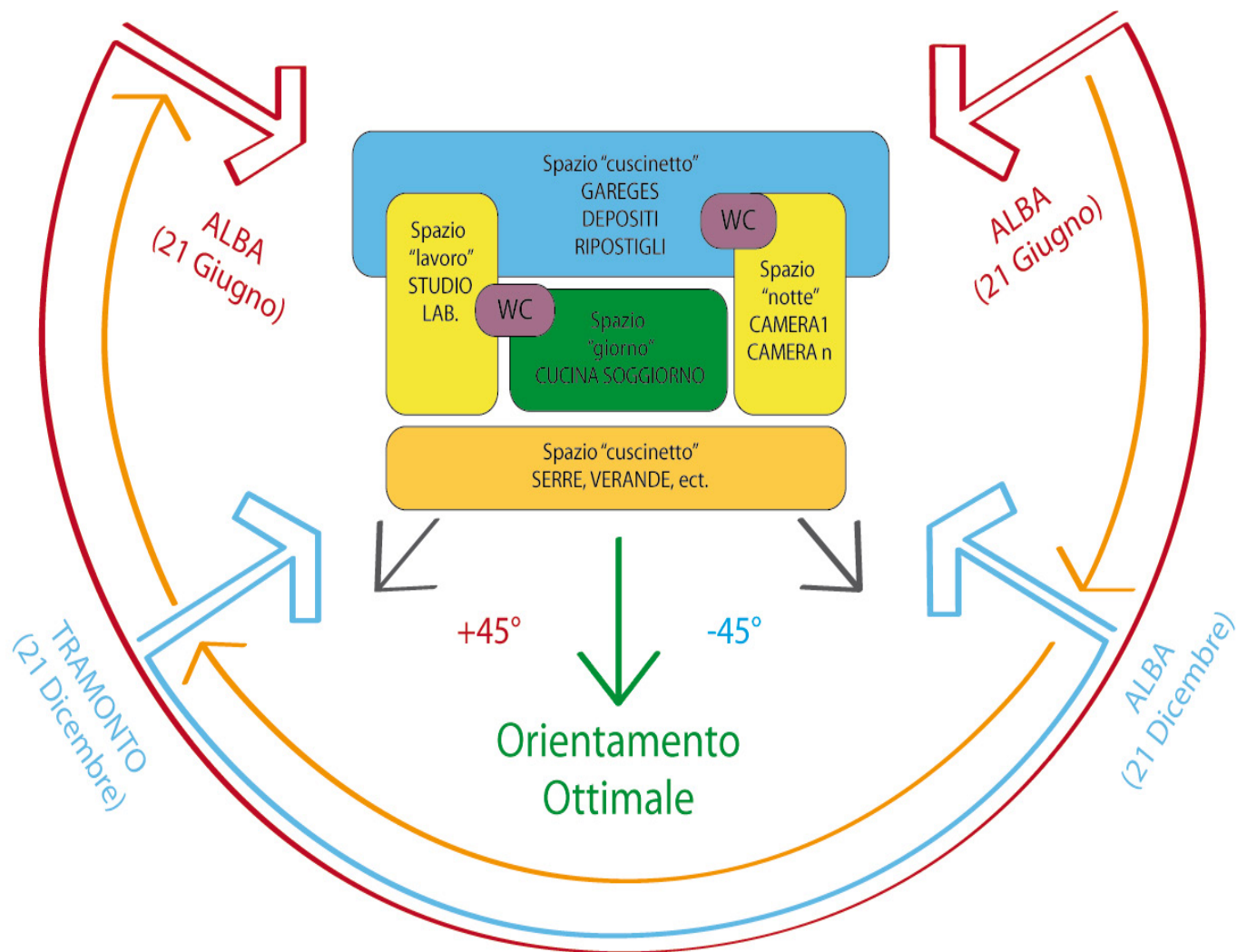
### 1) Room proportions

With the term “proportions” we refer to the specific volume ratio of the bedroom, resulting from the ratio between its length, width and height. Apartments have usually moderate dimensions and bedrooms are actually small in size, but not inferior to the regulative standard that imposes a minimum surface of 14,00 sqm for double rooms and 9,00 sqm for the single rooms. It is clear that the furniture setting largely depends on the planimetric regularity of the room and the positioning of internal and external fixtures. In the design phase of interiors, it is generally worth considering an appropriate passage around the bed, at least 75 cm wide, which has to be reserved for mattress handling operations and the daily bed rearrangement.

### 2) Natural lighting of the bedroom

The exposure of the bedroom to sun rays is related to its positioning in the east area of the apartment. Many different international studies have observed that natural light is able to penetrate 7 metres in depth into an interior room. As a result, with a proper orientation of windows it is possible to achieve the right amount of sunshine that allows the maintenance of ideal climatic conditions for the best use of mattresses and pillows. In this sense, the position of windows should be preferably set frontally or on the side of the bed in order to facilitate the air exchange in the morning.

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Scheme with organization and orientation of the main functional areas inside the house

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### 3) Natural and artificial ventilation

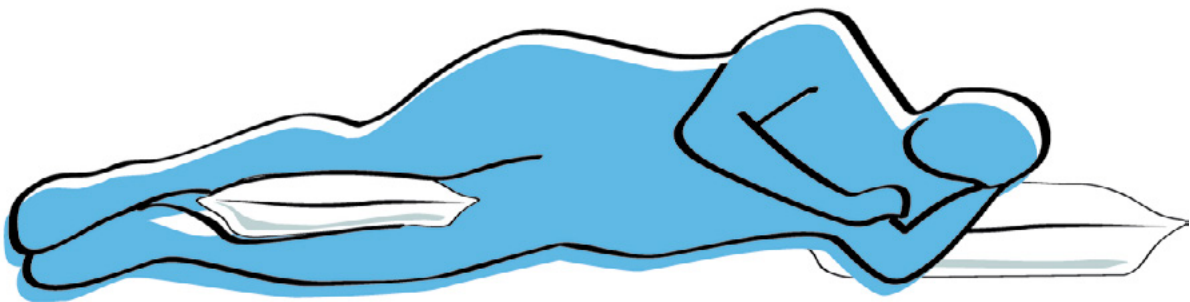
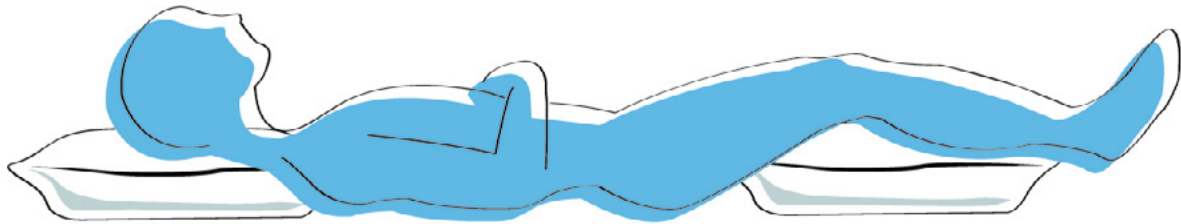
A free air flow without any obstacle represents the ideal way to keep the bedroom fresh and well ventilated. This solution is optimal in the case of building types with at least two sides facing the outdoors and the presence of openings on the two walls at angle or in frontal position. On the other hand, when the positioning of double windows inside the room is not feasible, it is possible to use air conditioning systems that allows to artificially recreate the best thermal conditions, not obtainable in the natural way. Systems of air conditioning, which are increasingly common in private rooms and public spaces, represent also a good way to remove the slight perception of heat retention which can be caused by viscoelastic mattresses in particularly hot and sultry climates.

### 4) Room configuration

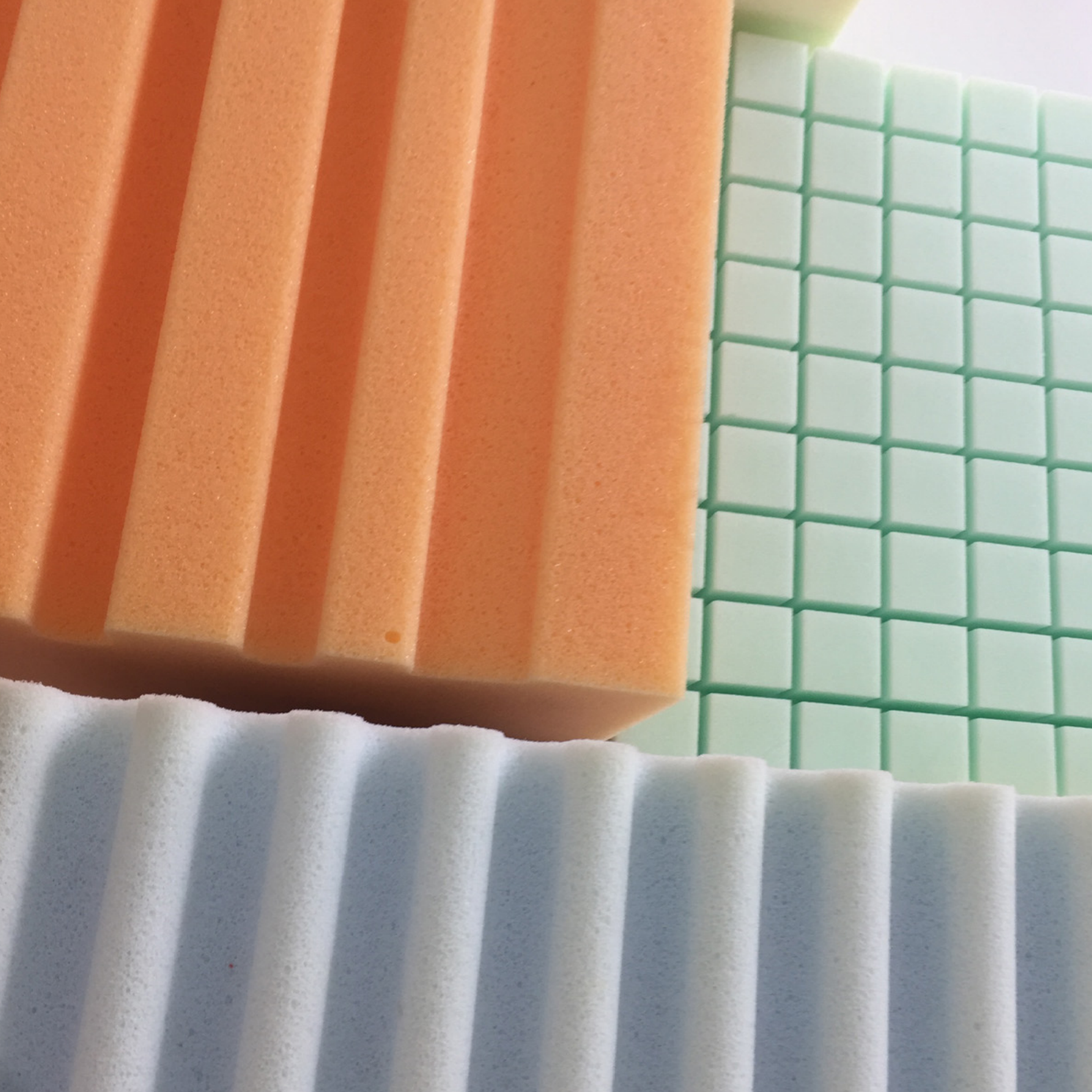
Every bedroom has access points that connect it to a balcony or a window, to the close bathroom or the disengagement spaces of the sleeping area. According to a proper design criterion of the rest spaces, if we draw an imaginary line that ideally connects these exit points, this should be free of interferences by the furnishings present in the environment. In other words, it is necessary to reserve a passage zone, cleaned from possible obstacles or excessive recesses that could reduce the movement of people and things, in order to ease the movements and the handlings, including those of the mattress during periodic maintenance.

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# poliuretano è

a project promoted by

## Promoters

The logo for CIRES, featuring the word "CIRES" in a bold, black, sans-serif font.The logo for NORDITALIA resine, with "NORDITALIA" in blue and "resine" in a smaller, black font below it.The logo for ORSA foam, with "ORSA" in blue and "foam" in a smaller, italicized blue font.The logo for PELMA, featuring a green square icon followed by the word "PELMA" in a green, sans-serif font.The logo for SIP Sud Italia Poliuretani, with "SIP" in bold, "Sud Italia" in a smaller font, and "Poliuretani" in a smaller font below it.

## Supporters

The logo for EVONIK, with a stylized "E" icon followed by the word "EVONIK" in a bold, sans-serif font and "POWER TO CREATE" in a smaller font below it.The logos for BorsodChem and WANHUA. BorsodChem is a blue logo with the text "BorsodChem" and "Chemistry for generations". WANHUA is a blue logo with the text "WANHUA" and Chinese characters.The logo for HUNTSMAN, with the word "HUNTSMAN" in a bold, sans-serif font and "Enriching lives through innovation" in a smaller font below it.The logo for REPI, featuring the word "REPI" in a stylized, black, sans-serif font.