

*All solutions, All materials  
One partner*



*All in One*



*Tailor-Made Plastic Profiles*

English 



## Corporate Profile

Alfa Solare S.p.A., located in San Marino, has been working in the sector of plastic material extrusion since 1986. Tecnologica S.p.A., located in Pietracuta di San Leo (Rimini) in Italy, has been operative since 2001.

Our long experience has always been based on continuous research, quality and flexibility, making us, not only a supplier of finished products, but an essential partner in the developing of new solutions. The many types of products we offer, range from: PVC (soft, semi-hard and hard), TPE, ABS, to Polyamide. Our vast know-how in the production of thermal break profiles has enabled us to become a world leader in this sector. In the building industry and window and door frame sectors, our company has developed highly innovative solutions for energy-saving and for the improvement of the thermal performance. Our solutions are also being increasingly used in a wider range of applications, from home and office furniture, to automotive and shipyard components.



**Production:** extruded profiles  
in Polyamide (PA)



**Production:** extruded profiles  
in PVC, ABS and TPE

## Our Mission

The Alfa Solare Group, by constantly researching and innovating at every phase of its activity, has achieved a position as a leader in an extremely dynamic and evolving market, thus guaranteeing innovative and high quality products. The products of The Alfa Solare Group are recognized internationally for their high quality and extreme dimensional precision.

The constant growth of The Alfa Solare Group is reflected in the continuous increase of its volume of business and an always more incisive presence on the international markets. The Alfa Solare Group, thanks to more than two decades of experience and its specialized production, is not only a supplier of finished products, but also a **PARTNER AND EXCLUSIVE INTERLOCUTOR** in the study and development of innovative solutions, in particular for the improvement of the thermal insulation performance.

All this is thanks to our:

- **CONSTANT PRODUCT INNOVATION**
- **KNOW-HOW AND 360° GLOBAL VISION**
- **COMPLETE PRODUCT RANGE**
- **NEW TECHNICAL SOLUTIONS**
- **CUSTOMIZED SOLUTIONS**

The Alfa Solare Group guarantees the realization of **STANDARD PROFILES** and **CUSTOMIZED PROFILES** from clients' drawings.

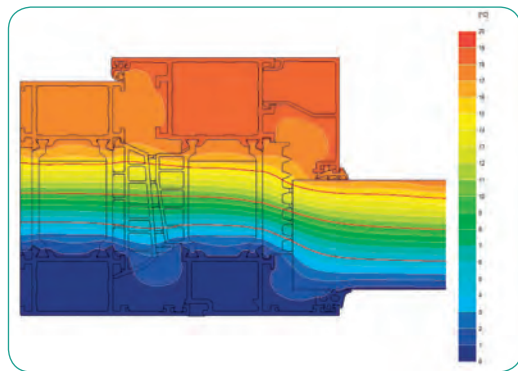




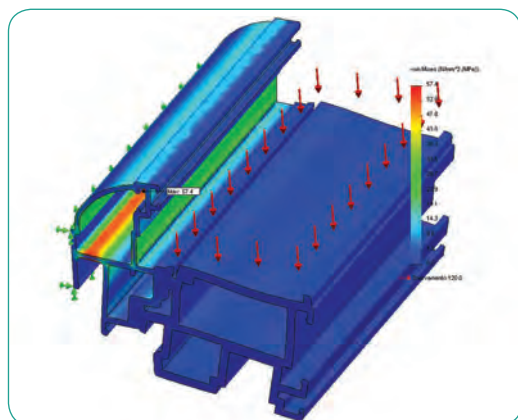
*25 years with you*

## Services

Our technical office offers a complete service and advanced solutions, from the design to the extrusion phases, as well as during the final usage of the finished product, by using: **Programs CAD/CAM**, for the study and design of the projects.



**Thermal simulation software BISCO**, for the calculation of the thermal transmittance value of the systems for the construction of aluminum window and door frames.



**Simulation software FEM**, for the calculation of the possible critical points of the system under study.

## THE KEY FACTORS IN OUR PRODUCTION PROCESS

### Team

Qualified personnel for the design and development of innovative solution, the studying of customized machining and capillary line-control.

### Structure

Advanced manufacturing system, dedicated area for logistics and storage, production lot traceability.

### Reserch and Development

High Tech. Equipment, internal test laboratory and support software.



# Global Organization



- Areas in which we operate  
(Canada, Europa, Russia, Medio Oriente)
- Areas in expansion  
(Australia, USA, Sud America, Marocco, Sud Africa, India, Cina)

## Our commercial worldwide network

BELGIUM\_EASTERN EUROPE\_FRANCE\_GERMANY\_GREECE\_ITALY\_RUSSIA\_CANADA\_KOREA  
MIDDLE EAST\_NETHERLANDS\_PORTUGAL\_SPAIN\_SWITZERLAND\_TURKEY\_USA



**ALFA SOLARE**  
INDUSTRIAS PLASTICAS S.L.\_Valladolid (Spain)

Our objective is to expand and to reinforce our distribution network by creating commercial poles in strategic areas, this will enable us to supply rapidly and efficiently also the countries around these areas.  
This dynamic marketing action is consolidating the position of The Alfa Solare Group on a world level.



# Certification

## ISO 9001:2008

The Quality System has been certified for many years according to the ISO 9000 norms and in 2010 obtained the upgrade to the new standard ISO 9001:2008. This norm certifies that The Alfa Solare Group operates, in every area of its organization, on the basis of precise criteria that are constantly monitored and reviewed.



The Quality Management System is for The Alfa Solare Group a fundamental instrument to realize, pursue and reach its objectives. This quality is at the foundation of our activities, a quality that has made us an essential partner for many companies.

# Product Certification

The quality of our products has been recognized and certified by prestigious international institutions such as IFT Rosenheim (Germany), CSTB (France), CSTC (Belgium) and Qualital (Italy). Our range of products for Thermal Break, ALFAMID® and

ALFAPRO®, has obtained the product certification ATG, issued by the Belgium institution UBAtc. The thermal break products ALFATECH® in PVC have obtained the French certification NF132.



# Internal Test Laboratory

Our laboratory is at the service of the Quality System and is a further guarantee for the client, we are able to carry out the following tests to verify mechanical and physical properties:

- TENSILE STRENGTH, MODULUS AND ELONGATION AT BREAK
- FLEXURAL STRENGTH AND MODULUS
- HARDNESS
- DENSITY
- ASH CONTENT
- VICAT
- HDT
- IZOD AND CHARPY
- COLORIMETRIC TEST
- WATER CONTENT



## All Solutions

A technical office dedicated full-time to the study of advanced solutions for our clients to obtain the maximum energy efficiency.

## All Materials

A wide range of standard products, PVC (soft, semi-hard and hard), TPE, EPDM, ABS and Polyamide. A new generation of high-performance materials studied by our research and development department.

## One Partner

An exclusive partner able to propose varied technical solutions and materials with the aim to reduce thermal transmittance.





ALFA ECO-Line, is a range of products made of recycled plastic materials Polyamide, ABS, PVC and TPE. Products that respect the environment by using recyclable materials.

*The products available in this range are:*



# Naturally Innovative

Alfa Solare Group is constantly striving to develop always higher performance materials, with the goal of improving energy-saving in thermal break window and door frame systems as well as in curtain walling systems.

In the 25 years that The Alfa Solare Group has been operating on the market, The Group has contributed significantly in helping the environment by reducing energy consumption for heating and air-conditioning.

The millions of metres of Polyamide, ABS, TPE, PVC and expanded products put on the market in these years, are materials that for their very nature, can be continually recycled.

**Now however, The Group has decided to make an even greater effort and make a further step forward!!!**

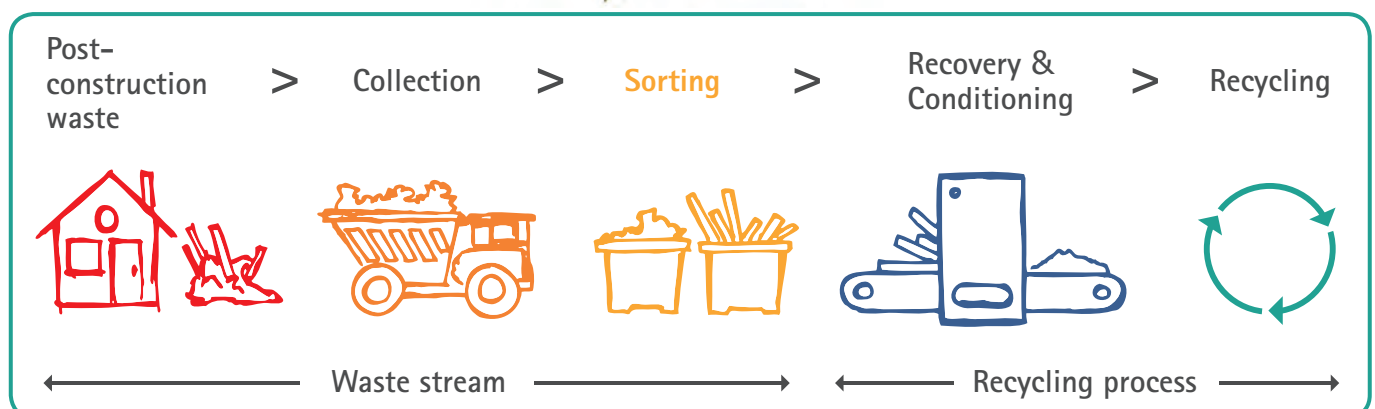
As we are all aware, the majority of energy being used today is obtained from fossil fuels (oil, natural gas

and carbon), non-renewable energy sources that will inevitably run out. Alternative energy sources are still not enough, for many reasons, to guarantee our future energy needs.

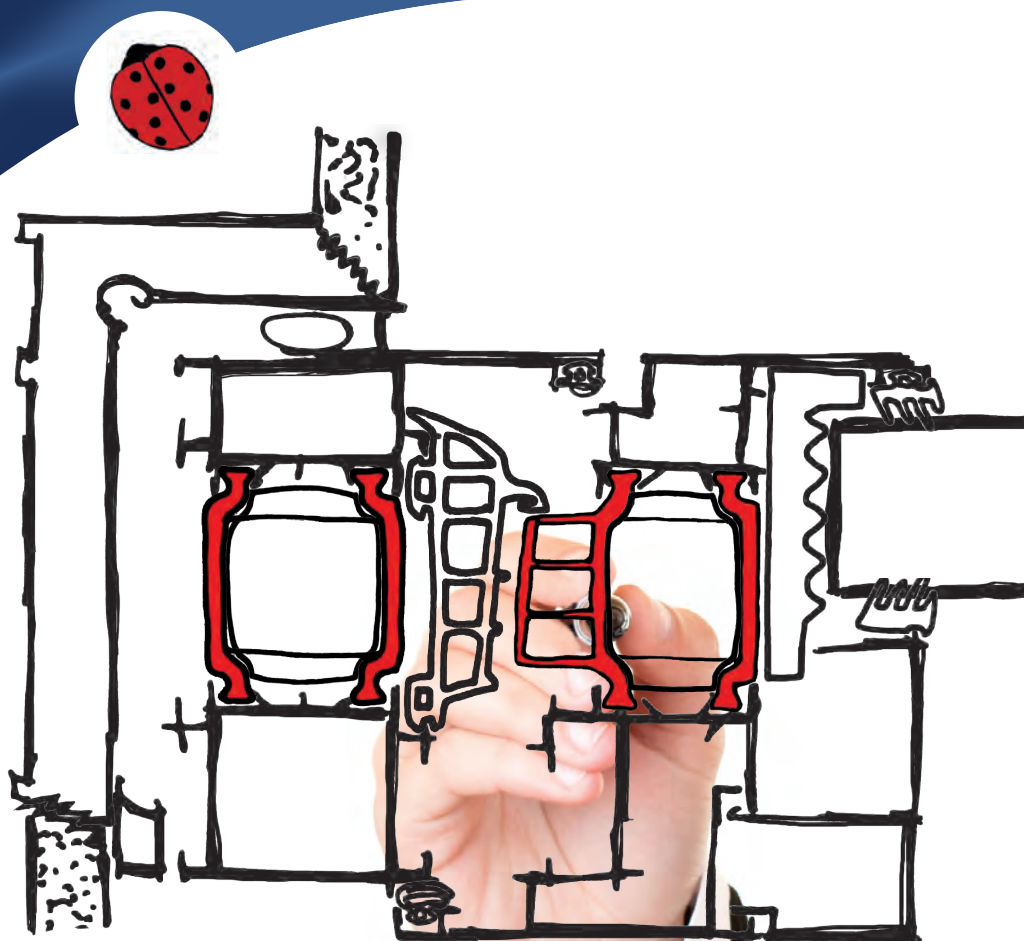
For this reason, the only solutions currently possible are to reduce energy consumption and improve efficiency, in particular in housing and recycling. As plastic materials are also derived from oil, The Alfa Solare Group has the objective to contribute in saving this non-renewable energy source with its own production line ECO-Line.

With ECO-Line, The Alfa Solare Group realises products that can be made of 100% recycled plastic materials, a fact that does not compromise the performance of the products. Our technical office is at the disposal of our clients to study specific projects with these characteristics.

**We strongly believe that by working together we can improve the future of our planet.**



ALFA ECO-Line, is a range of products made of recycled plastic materials Polyamide, ABS, PVC and TPE. Products that respect the environment by using recyclable materials.



ALFAMID®, registered trademark of The Alfa Solare Group. A range of insulating bars for aluminum thermal break systems, made of Polyamide 6.6 with 25% fiber-glass content.



ALFAPRO®, registered trademark of The Alfa Solare Group. Innovative insulating bars for aluminum thermal break systems, made of a special ABS compound.





# The Thermal Break



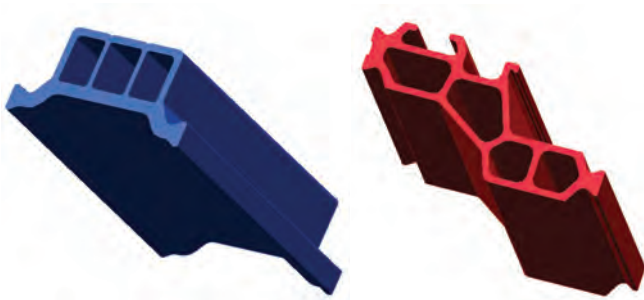
Value Lambda 0.3 W/m\*k

**ALFAMID®** represents the tradition of plastic profiles for thermal break, in which The Alfa Solare Group is one of the world leaders.

The Group offers a wide range of standard profiles and, thanks to its high technology and know-how, is able to design and realize customized profiles to meet every requirement. The products are also available in white and light gray in order to reduce painting defects. They can be completed with additional accessories such as

glue wiring and laser marking for a complete traceability, furthermore they can be supplied in rolls to reduce storage space and scrap.

The products ALFAMID® have obtained the product certification ATG-H827, this is a confirmation and guarantee of their quality. A quality that is vital for a correct assembling and to respect the requirements of the international norm EN14024.



The Alfa Solare Group has industrialized and produced, first on the market, the **CREMONESE BOLTS IN POLYAMIDE**. Particular attention is given to the mechanical properties of this product, indispensable to meet the resistance requirements of the opening/closing cycle of the norm EN 13126.



Value Lambda 0.125 W/m\*k

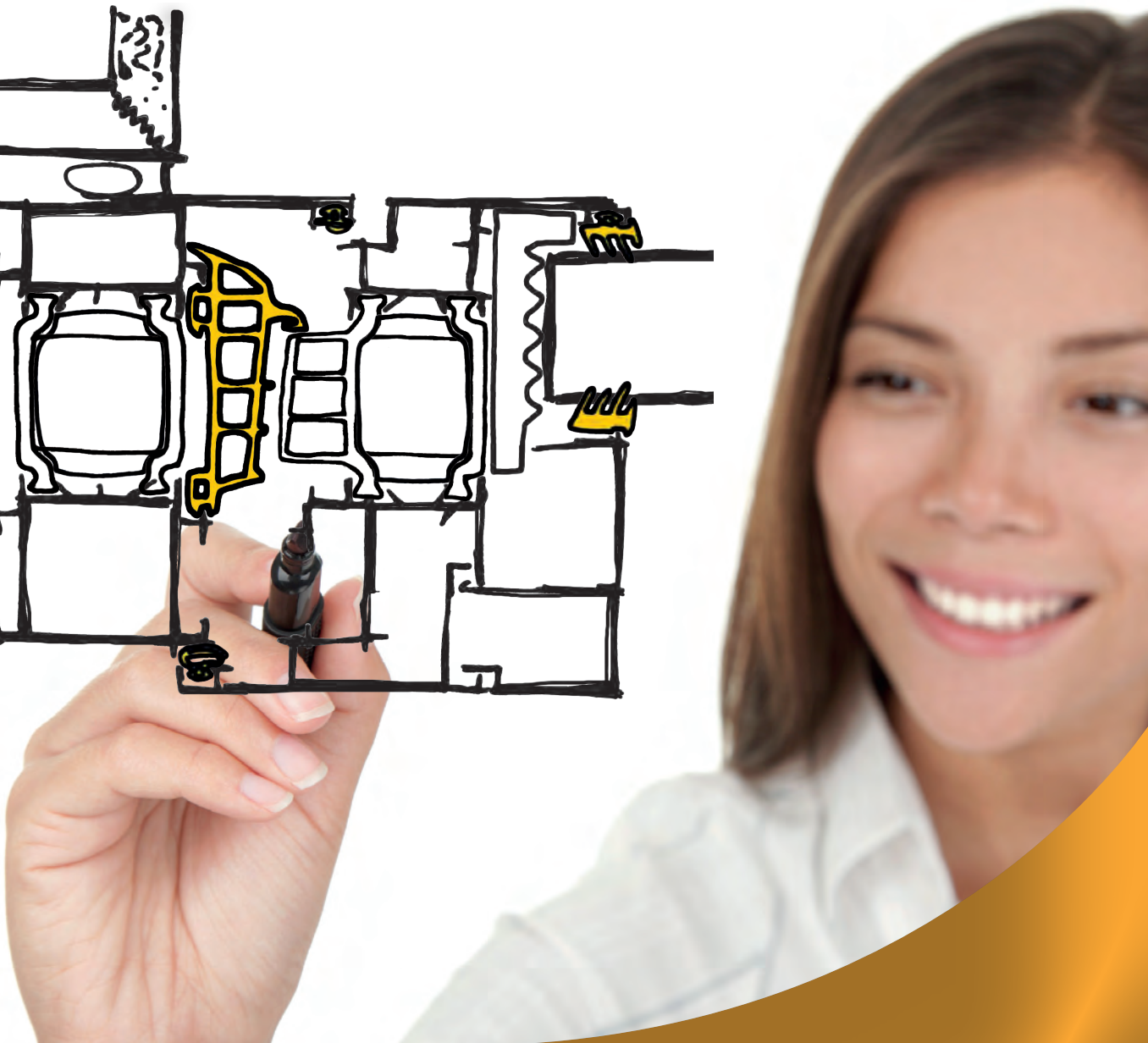
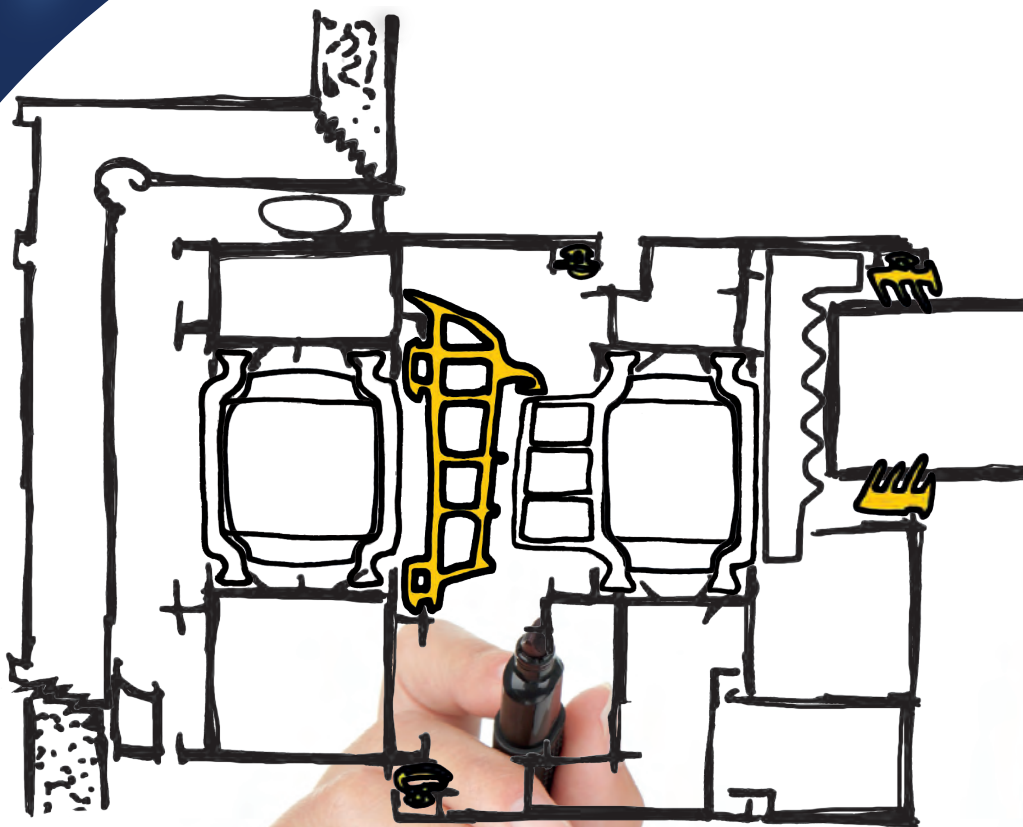
**ALFAPRO®** represents the technological innovation of The Alfa Solare Group in insulating bars for thermal break profiles as an alternative to polyamide, bars with very high thermal performance.

With this new range of products, The Group offers a further choice to its clients, in particular to those whom require excellent results in thermal efficiency, assembling after surface treatments (painting or oxidation). The products ALFAPRO® are made with a particular mixture of ABS, specifically studied, that ensures the mechanical performance of the system and

above all a thermal performance of absolute respect, thus guaranteeing dimensional stability and limiting deformation, thanks to a limited coefficient of linear expansion.

The products ALFAPRO® have also obtained the product certification ATG-H827, once again confirming the quality of our products. A quality that is essential for correct assembling and to respect the international norm EN14024.





ALFAEPDM. Range of gaskets in EPDM for window and door frame systems.



ALFAPRENE. Range of gaskets in thermoplastic rubber for window and door frame systems.





# The Gaskets



Value Lambda 0.25 W/m\*k

ALFAEPDM represents the tradition of gaskets applied mainly in aluminum window and door frame systems.

The product range offered is:

- TRADITIONAL COMPACT GASKETS
- EXPANDED GASKETS
- CO-EXTRUDED GASKETS
- COLOURED GASKETS
- VULCANIZED RUBBER CORNERS



Value Lambda 0.132 W/m\*k

ALFAPRENE represents the technological innovation of the Alfa Solare Group in gaskets for window and door frames as an alternative with a very high thermal performance to EPDM.

ALFAPRENE:

- Is a thermoplastic polymer with excellent characteristics that makes it ideal for the making of gaskets for window and door frames;
- Is easily weldable, thanks to specific machinery, complete welded gasket frames can be made;
- Has a high thermal performance;
- IS RECYCLABLE;
- Is high resistant to the main chemical agents.

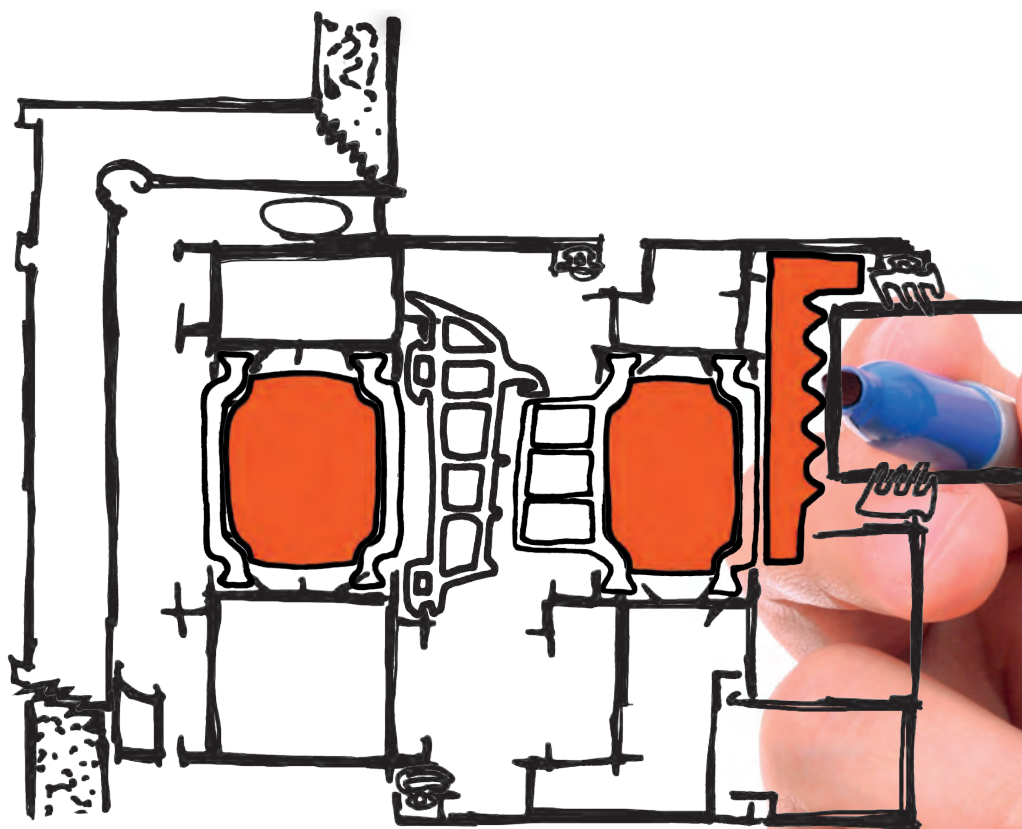
ALFAPRENE enables, thanks to its physical-mechanical characteristics, the making of high-performance gaskets for those that require higher quality and a guarantee of long-term performance.

The Alfa Solare Group has studied and built a specific machine to realize welded gasket frames. Among the many advantages are:

- a 50% reduction in the production and assembling time of a complete frame compared to a traditional EPDM frame;
- less storage space, as corner pieces are eliminated;
- a substantial increase in resistance to atmospheric agents such as air and water, thanks to the perfect welding and integrity of the corners.



The characteristics of ALFAPRENE are particularly suitable for the making of gaskets in the window and door frame sector and for wooden doors. In this sector the Alfa Solare Group offers also the range of products ALFASOFT, always part of the same family of TPE.



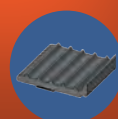
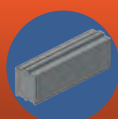
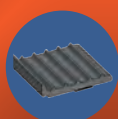
Range of closed cell, expanded insulating strips, mainly for aluminum window and door frame systems.



Range of open cell, expanded insulating strips, mainly for aluminum window and door frame systems. A fundamental characteristic is the resistance to heat of more than 220°C.



Range of extruded insulating strips, for aluminum window and door systems. A fundamental characteristic is the expansion that occurs during the painting of the aluminum profiles.





# Expanded Insulating Profiles



Value Lambda 0.038 W/m\*k

ALFAXPE represents the latest innovation in expanded insulating profiles for the improvement of the thermal performance of aluminum profiles. As well as a large range of standard profiles, customized profiles can be made to meet all our clients' requirements. The profiles are supplied with double-sided adhesive

if requested. The product does not resist the painting process, for which it has to be inserted afterward. For clients that require assembling after painting, bars ALFAMID® and ALFAPRO® can be supplied with the profile ALFAXPE already attached to them.



Value Lambda 0.031 W/m\*k

ALFAPX220 represents the technical innovation offered by The Alfa Solare Group for the making of expanded insulating profiles. The fundamental characteristic of this product is its capacity to resist to high temperatures, more than 220°C.

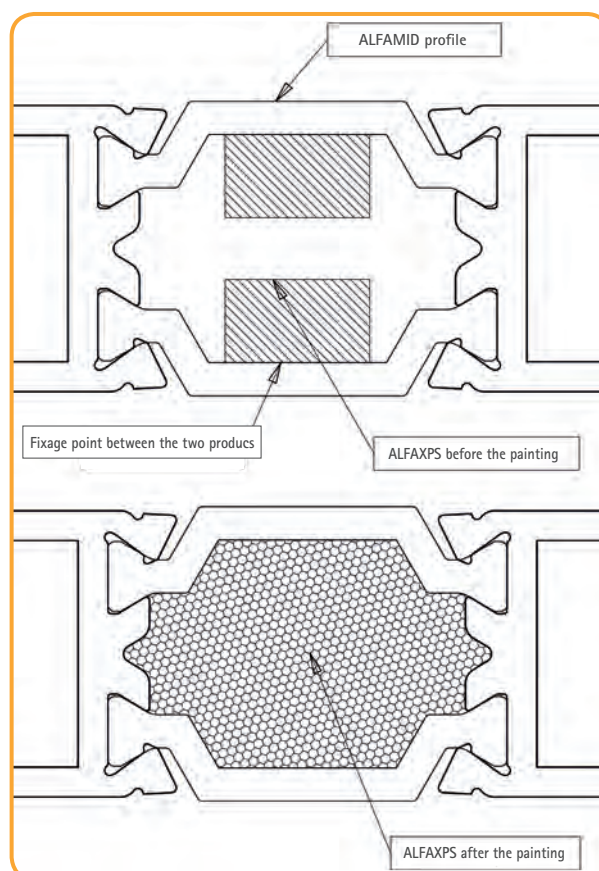
For this reason the product can be inserted in the aluminum bars before painting. Bars ALFAMID® can be supplied with the profile ALFAPX220 already attached to them.

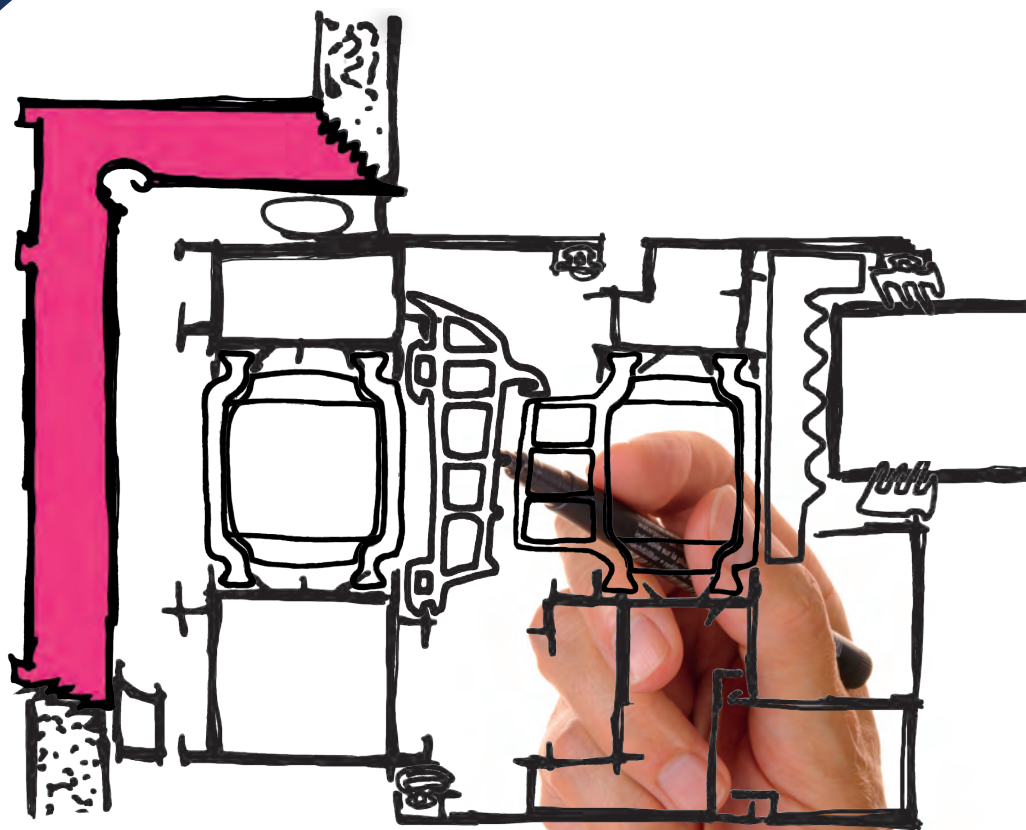


Value Lambda 0.04 W/m\*k

ALFAXPS represents another innovative solution offered by The Alfa Solare Group, patented internationally, for the making of insulating profiles for aluminum systems.

The fundamental characteristic of this product is that the expansion occurs during the process of painting of the aluminum bars. The product is supplied, in a compacted form, already attached to bars ALFAMID®, thus aiding the client in its operations of stocking, assembling and painting. At the end of these processes an aluminum bar is obtained with the expanded profile already inserted.





Range of expanded products, created for the realization of thermal insulating window and door mounting frames and door sills, for the correct installation of window and door frames.





# Installation

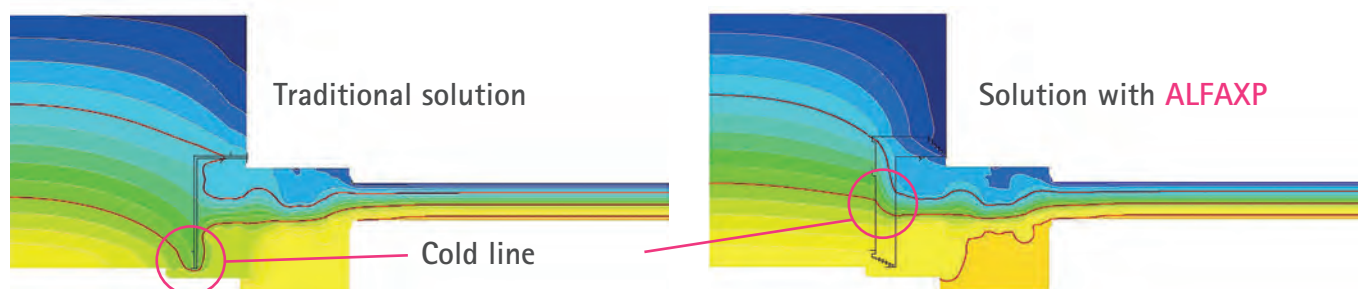


Value Lambda 0.07 W/m\*k

**ALFAXP is a product, studied and developed for the realization of high performance thermal window and door mounting frames.**

The growing demand for energy-saving, together with the related legislation in force, has emphasized the need to reduce energy consumption in general. This is particularly important in the building sector, which alone is responsible for about 40% of the energy consumption in the Europe Union. With regards to glass window and door systems (glass including frames), all the systems in commerce have to respect the standards set out by the legislation in force for the climatic zone in which they are to be installed.

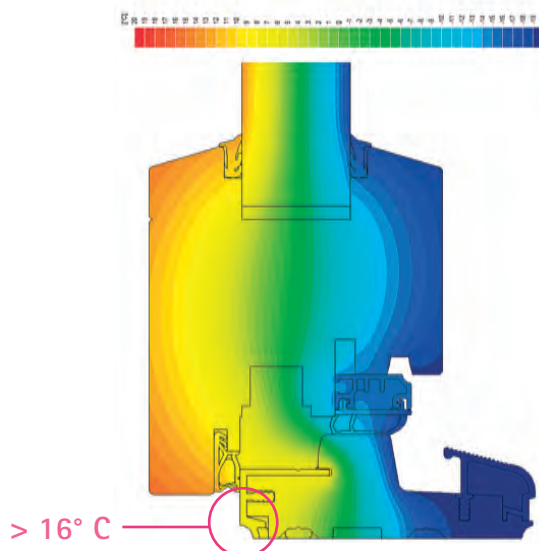
To obtain better performances, window and door frame manufacturers are being forced to design always more complex and expensive systems. To meet these standards, it is possible to act on the materials, the glassing or the structure of the product. All these efforts to improve the thermal performance are constantly and inevitably compromised by inadequate wall mounting methods that cancel the thermal break effects of the window and/or door frame. To guarantee all the energy-saving requirements described above, The Alfa Solare Group has studied, tested and patented a new system of window and door mounting frames that include also the mounting accessories, all of which ensures numerous advantages.

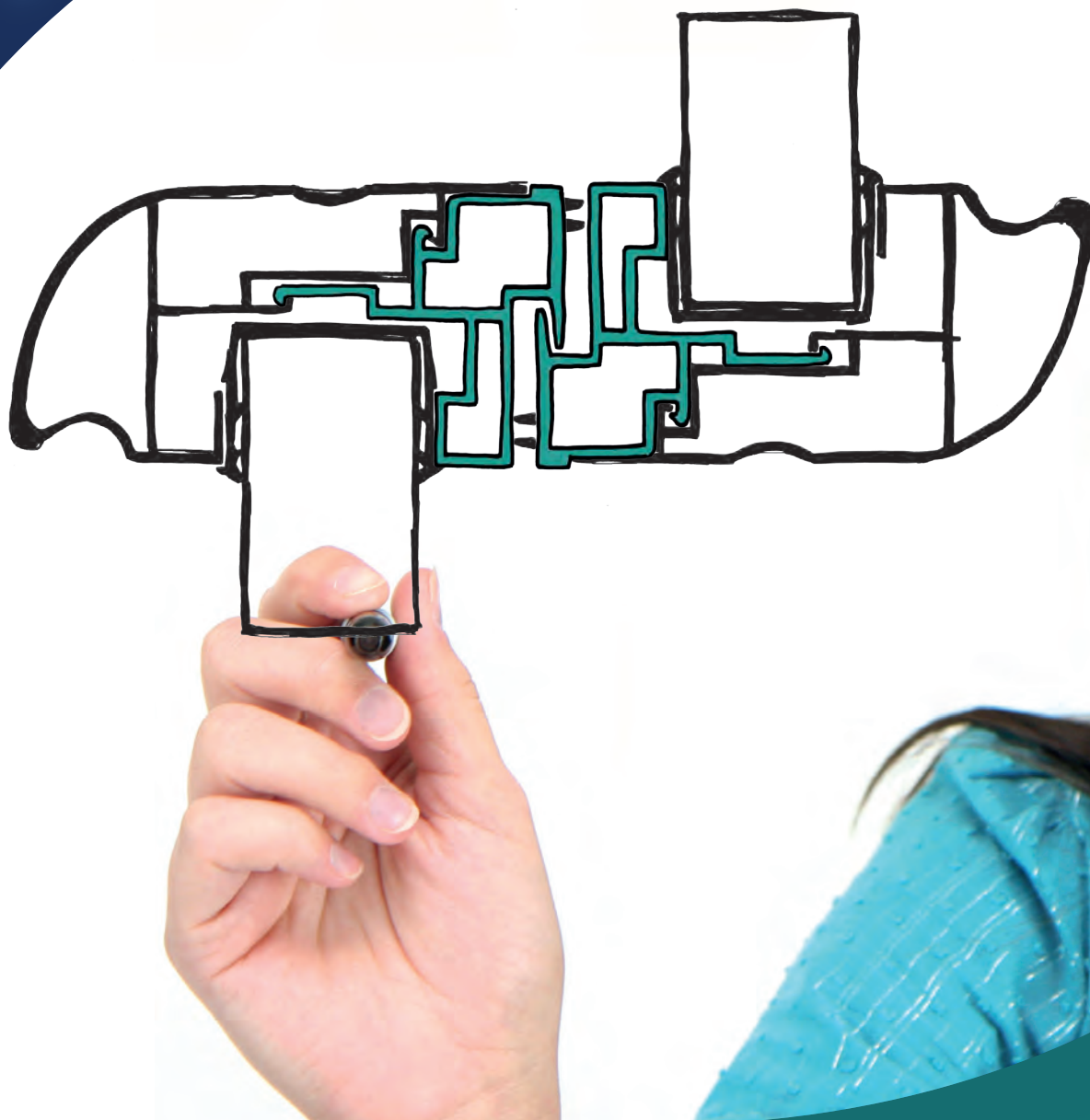


From the research and collaboration carried out with CSB F.lli Straudi S.p.a., a solid partnership has been created in the project named Posaclima, a project that offers new energy-saving systems and products for the wall mounting of window and door frames. The project, as described in the Posaclima manual has been presented and approved by the technicians of the Agency CasaClima (Klima Haus) in Bolzano. More information with regards to this innovation is available at the site [www.posaclima.it](http://www.posaclima.it)

The Alfa Solare Group, having resolved the problem of the wall mounting by the realization of its own patented system of thermal window and door mounting frames, has enlarged its horizons to French windows and in particular to door sills.

In this case, the most critical aspect is determined by the formation of condensation on the internal part of the door sills, this is caused by the low thermal insulating properties of all the door sills currently on the market. Our research has enabled us to create a door sill completely in plastic, with a high insulation performance, that eliminates the risk of condensation formation. It is possible to apply surface coverings to the door sill to meet all aesthetic needs.





ALFATECH®, registered trademark of the Alfa Solare Group. Range of products in PVC, rigid and co-extruded, for the realization of complementary profiles in window and door frame systems.



ALFAPRO®, registered trademark of the Alfa Solare Group. Range of products in an ABS compound, rigid and co-extruded, for the realization of innovative profiles for window and door frame systems.





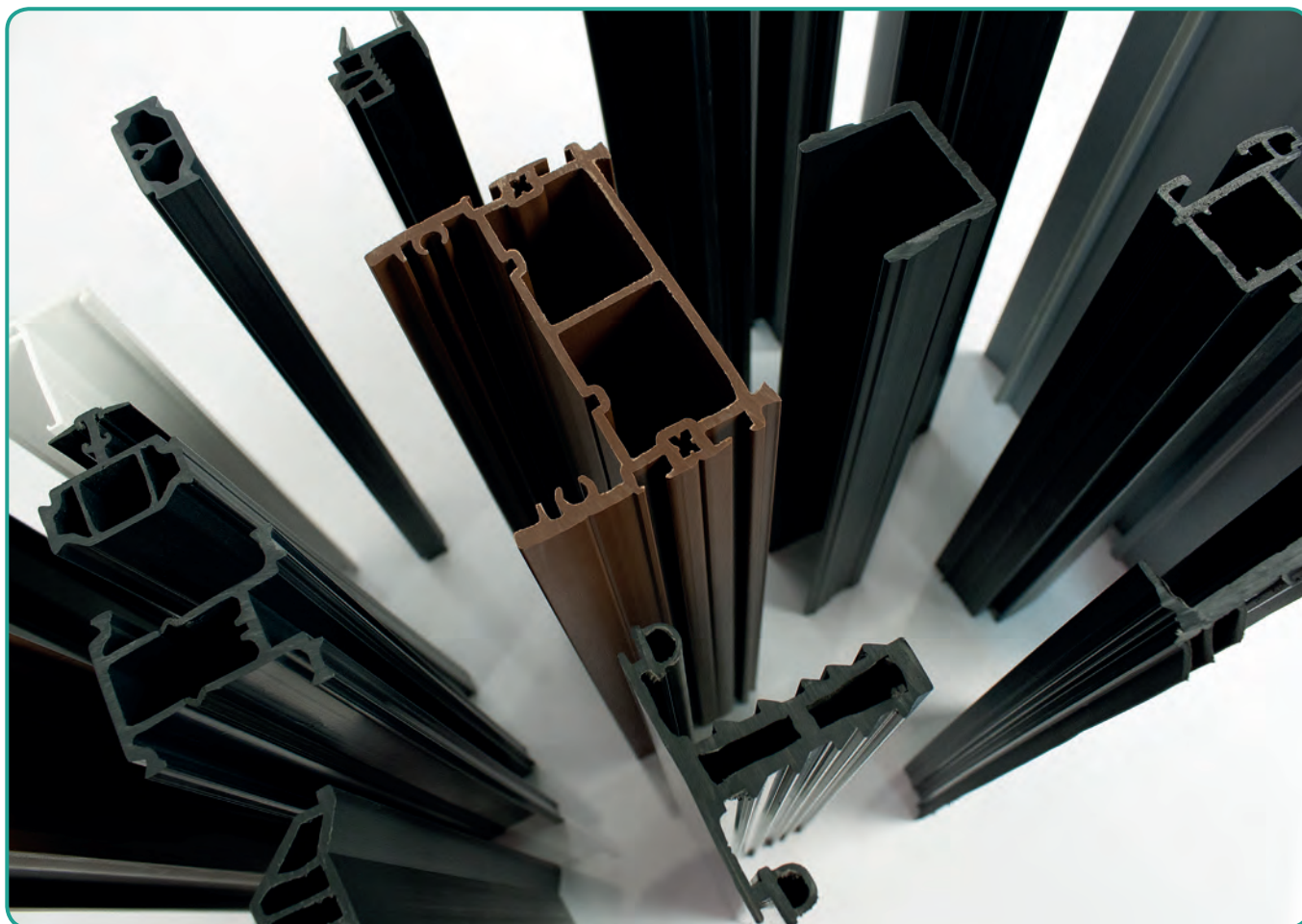
# The Accessory Profiles

The Alfa Solare Group has an extensive series of complementary accessory profiles to complete its vast range of products, products that range from those for window and door frames, curtain walling, thermal break, gaskets, expanded products and those for wall mounting.

The Alfa Solare Group offers a large series of standard products, furthermore another distinctive aspect of the company is its capacity to realize customized profiles, collaborating with and putting all of its know-

how at the disposal of its clients. Depending on the characteristics required by the product, the choice could be made from among various types of materials, such as **ALFAPRO®**, **ALFATECH®** and **ALFAXP**. All the solutions can come in co-extruded and tri-extruded versions.

The always more pressing search for high performance window and door frame systems, makes **ALFAPRO®** the ideal material for the building of composite aluminum and wooden systems, systems in which the plastic component is the predominant part.





## Other sectors

The Alfa Solare Group offers not only products for the window and door frame sector, but also solutions for many other sectors and applications, from home and office furnishing, to general industry and the automotive sector.

Our technical office is always at the client's disposal to carry out detailed studies in collaboration with the

client to find an ideal, customized solution, our aim is to satisfy in the best way every requirement, even the most complex. It has always been a strategic choice of our company to use high quality raw materials by carefully selecting our suppliers. Our production is capable of meeting every requirement of our clients. We are able to produce profiles with a weight from 10 to 2500 grams.

### The production of The Alfa Solare Group covers the following sectors:

- Aluminum window and door frames and curtain walling (Glazing gaskets, beating gaskets, joints, wedges, guides, etc..);
- Wooden windows and doors (Glazing gaskets, beating gaskets, joints, wedges, dust seal brushes, dust seals, etc..);
- Awnings (Rods, guides, etc..);
- Furniture (Guides, table edgings, dust seal brushes, dust seals, compensation profiles, etc..);
- Kitchen (Beating profiles, tops, guides, edging, etc..);
- Shower box (Guides, beating profiles, seals, etc..);
- Various other sectors.

### All the production can be customized by:

- Inserting dust seal brushes;
- Applying double-sided adhesive;
- Additional mechanical working such as milling, punching etc.;
- Application of a primer;
- Application of a protective film;
- Protection with a removable protective film;
- Customized marking (logo, production date, batch no., etc.);
- Customized colours on all the product range.







## Products that complete the range

**ALFASOFT:** extruded products made of a particular thermoplastic rubber of the TPE family, that allows the achieving of high mechanical performances, thanks to an elevated elasticity and a compression set value that make the profiles practically non-deformable in the course of time. The hardness range is very interesting as it ranges from 30 ShA to 90 ShA. The product can also be co-extruded, produced in a transparent colour and is easily customizable. It is particularly recommended for the wooden window and door sector.

**ALFAFLEX:** extruded products made of flexible, plasticized vinyl-based materials (PVC) for the window and door frame sector and for many other types of application.

**ALFAPLUS:** extruded products made of semi-flexible, plasticized, vinyl-based materials (PVC), developed for the furniture sector but suitable for many other types of application.

**ALFATWIN:** extruded products made by co-extrusion and tri-extrusion of different materials (compound of materials for type and /or only for colour).

**ALFABLOCK:** moulded products made of specifically selected materials for moulding, from PVC to Polyamide. A wide choice of rigid and soft materials that allow the production of extremely complex details for every requirement and application.

**ALFASAN:** extruded products made of co-polymer styrene-acrylonitrile (SAN).







## Additional mechanical working

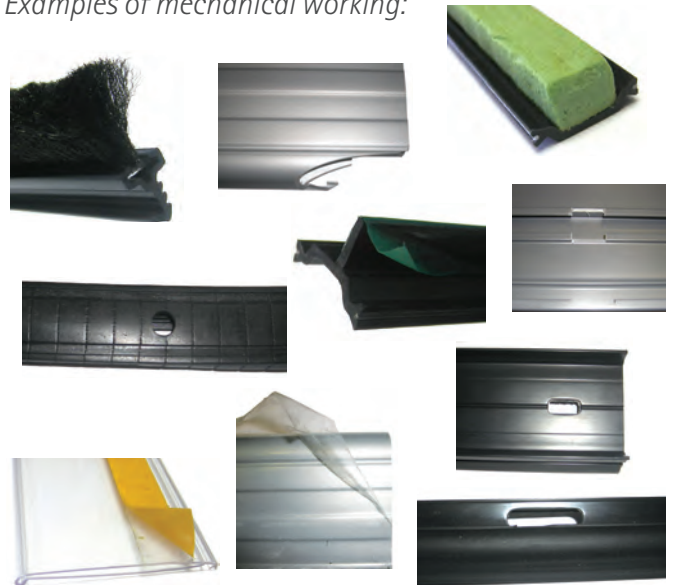
The Alfa Solare Group is able to supply not only extruded products, but also a large range of additional mechanical working. In this way the extruded material can be transformed into a finished product, also with assembling if required.

Our company is able to work pieces as long as 6.5 metres and to carry out complex working at five axes with very limited tolerances. The working can be carried out on line or on specific machinery.

The mechanical working possible is:

- Cutting to size and angle cutting
- Blanking
- Milling and CNC working
- Drilling
- Bending, rolling, cambering.

*Examples of mechanical working:*



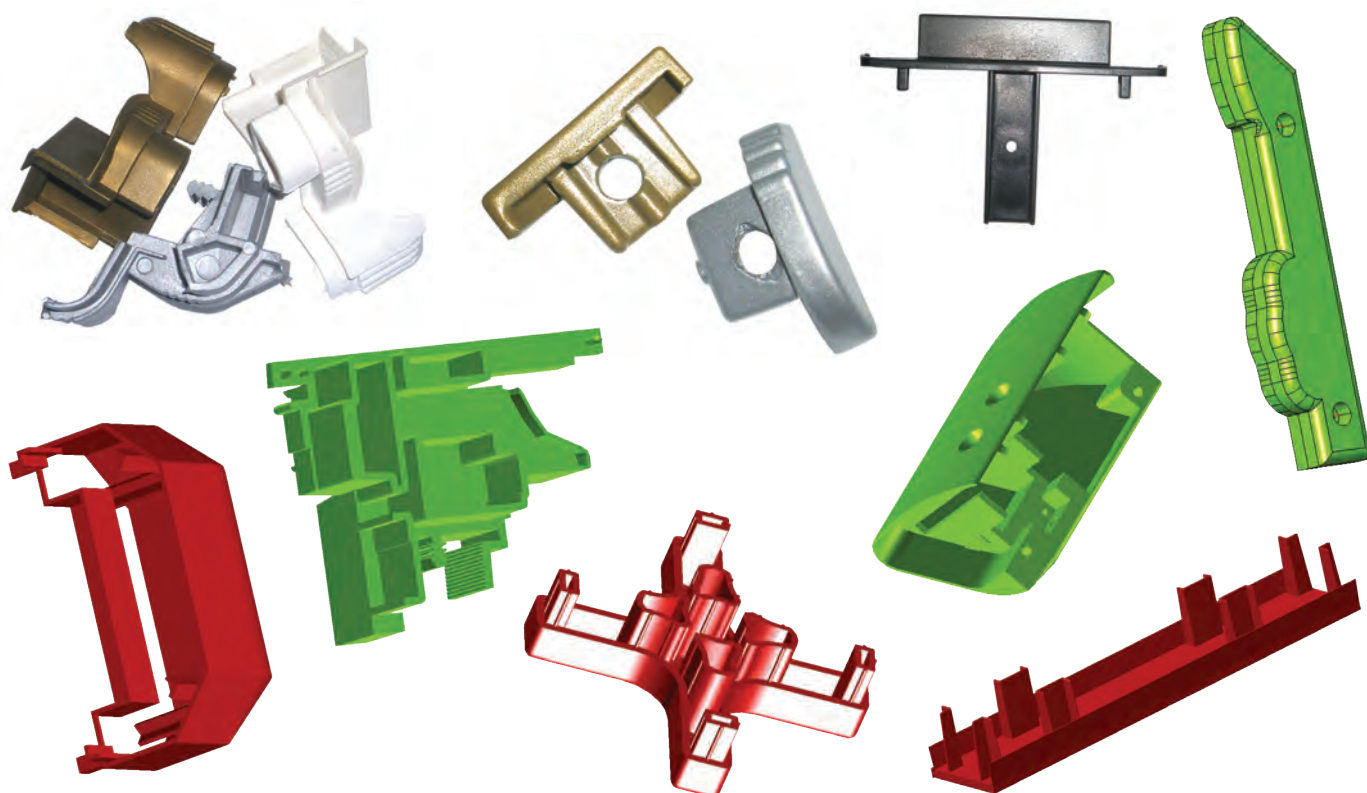




## ALFABLOCK (Moulding)

The Alfa Solare Group is able to supply, as well as extruded profiles, also moulded articles that complete the range of products required by the client, in this way the client has an exclusive interlocutor at its disposal when developing a project.

Our technical office has the know-how to evaluate and industrialize moulded articles to complement the extruded products. The moulded products can be made in a vast range of materials to meet every requirement, Polyamide, PVC, TPE, ABS, PP, etc..





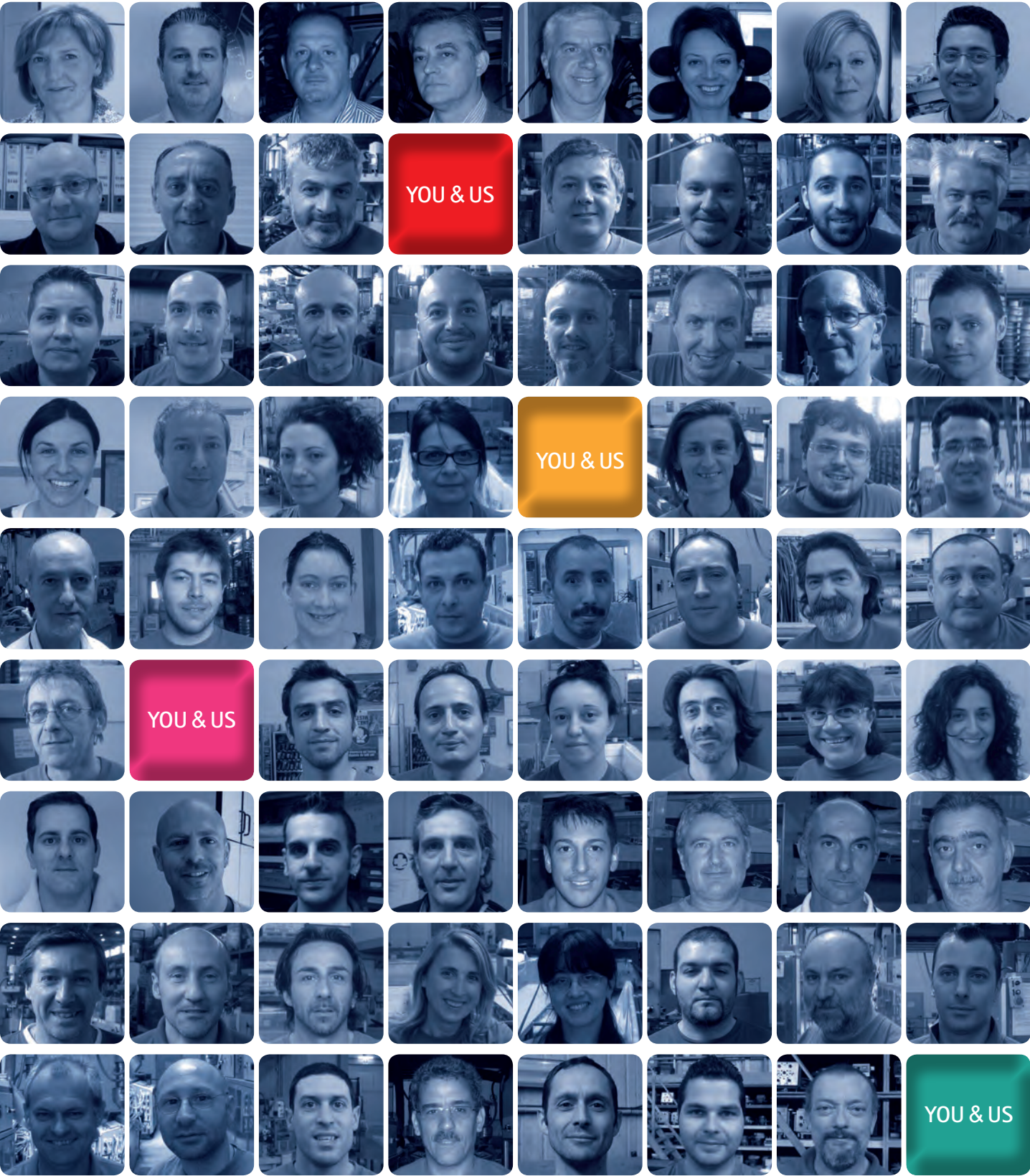
***YOU & US***



***We are  
working  
with You!***



# Our Team



Tailor-Made Plastic Profiles



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One partner*