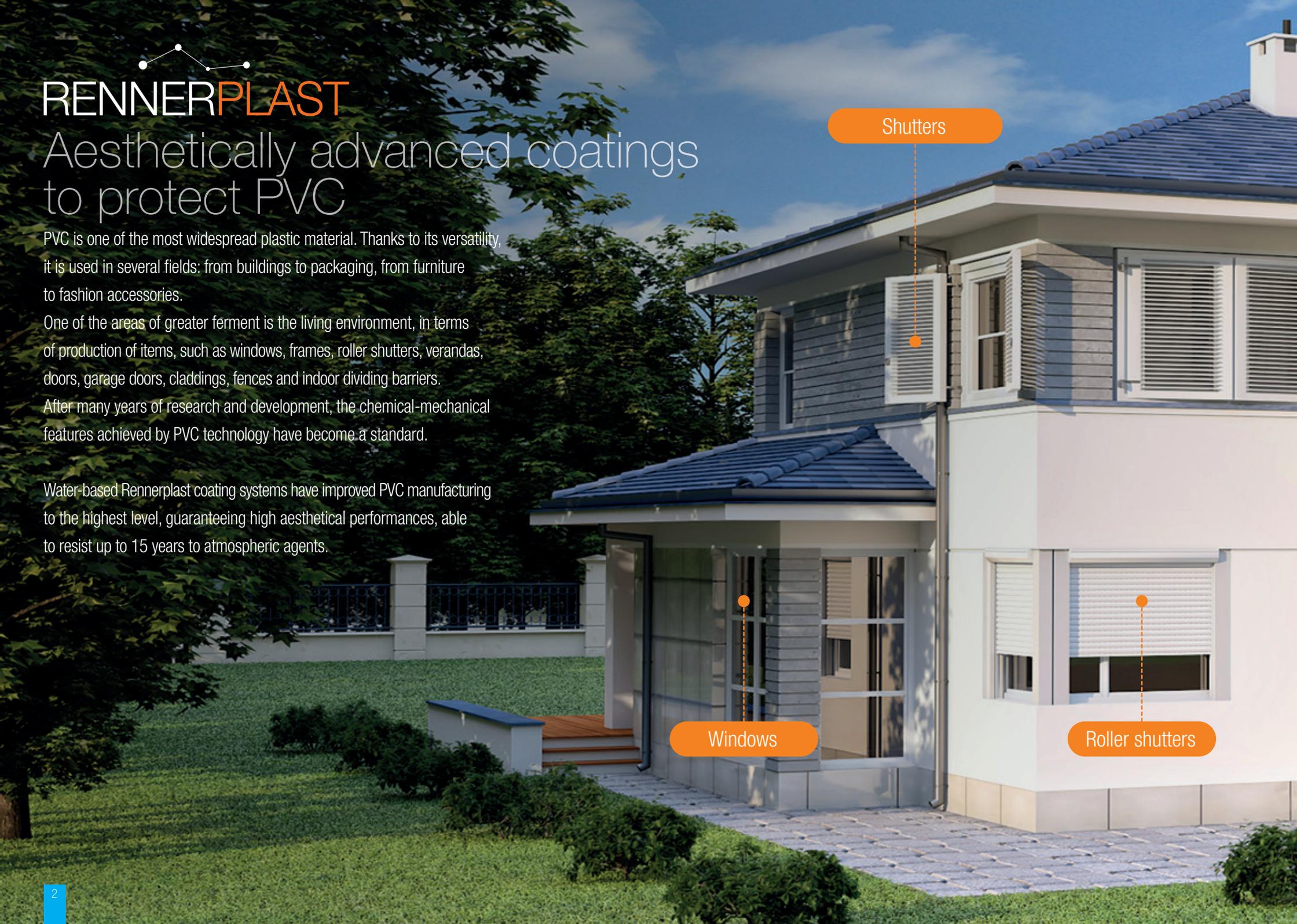




Hi-tech solutions to coat PVC



RENNERPLAST



RENNERPLAST

Aesthetically advanced coatings to protect PVC

PVC is one of the most widespread plastic material. Thanks to its versatility, it is used in several fields: from buildings to packaging, from furniture to fashion accessories.

One of the areas of greater ferment is the living environment, in terms of production of items, such as windows, frames, roller shutters, verandas, doors, garage doors, claddings, fences and indoor dividing barriers.

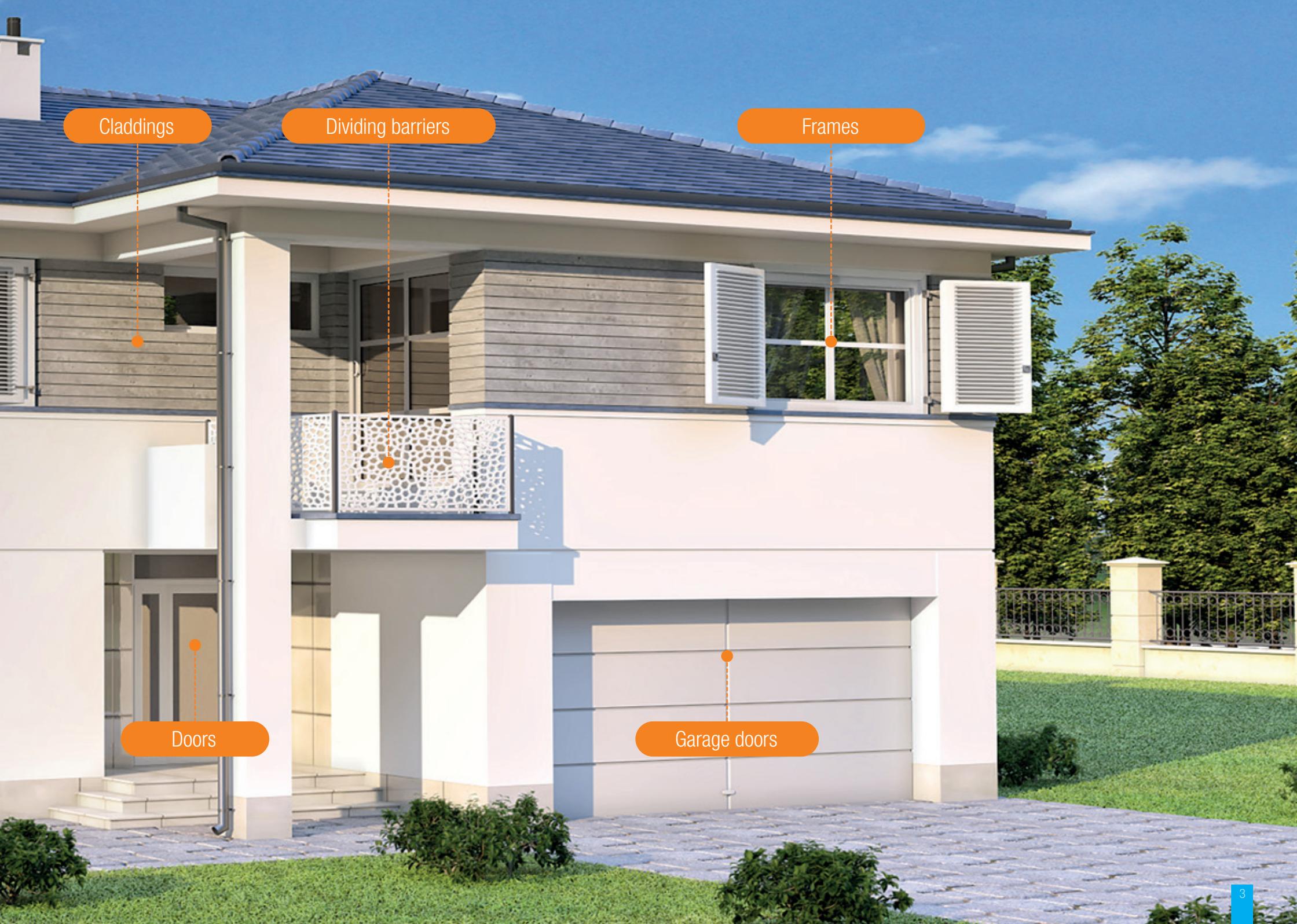
After many years of research and development, the chemical-mechanical features achieved by PVC technology have become a standard.

Water-based Rennerplast coating systems have improved PVC manufacturing to the highest level, guaranteeing high aesthetical performances, able to resist up to 15 years to atmospheric agents.

Shutters

Windows

Roller shutters



Claddings

Dividing barriers

Frames

Doors

Garage doors

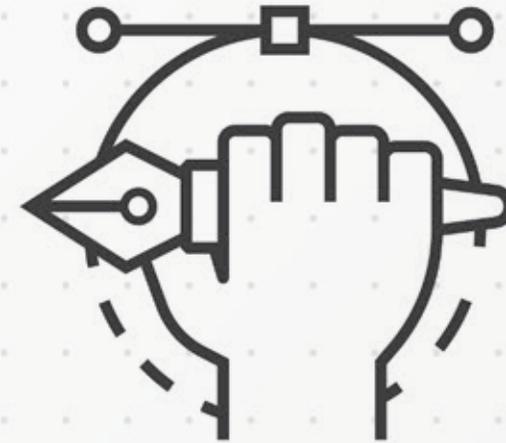
Four instant advantages



Durability

Up to 15 years of warranty

Up to 15 years Warranty certifies the extraordinary Renneplast coatings resistance. Protected by Rennerplast products, windows frames, roller shutters, verandas, doors, garage doors, claddings, fences are protected against the attacks of atmospheric agents and pollution, thus reaching unprecedented durability.



Design

Endless colors and special effects

With Rennerplast range, designers, architects, interior designers, customers, etc. can set their creativity free, mixing all shades and effects. Pastel colors, metallic tones, matt and semi-matt finishes, textured topcoats, etc. No limits to imagination.

Thanks to their exclusive composition, developed by Renner laboratories, Rennerplast coatings ensure immediate advantages.



Speed

More efficiency during production

Rennerplast coating system is based on just one product which is applicable in one single coat: a synonym of speed. Super adhesion and speed of drying drastically reduce production times and costs.



Health

Less VOC in the air

Rennerplast water-based coatings, like all the other water-based products created by Renner laboratories, respect both nature and people. Our chemists are aware of the important role of the industry in the fight against global warming; they eliminated 95% of solvent emissions. Our water-based coatings ensure very low VOC emissions and do not contain harmful substances to man and nature. All this to create healthier and more livable spaces and to participate to material and energy savings.



Strengths of Rennerplast coatings



● Low VOC - environmentally friendly



● Low odour



● No formaldehyde and heavy metals - user friendly



● Endless solutions to color



● Great durability outdoors



● Tested and guaranteed up to 15 years



● Fast drying



● Excellent adhesion to multiple surfaces



● Impact resistance



● Chemical-mechanical resistances



● Heat resistant formulations



● Super elasticity



● Heat stability



● Ease of application



● Application on both horizontal and vertical surfaces



● Ease of cleanliness - equipment can be cleaned with water



● Ease of use with either small and big batches



Solutions for the technician

Application by spray

Hand or automatic spray, either airless or airmix

1k coating **YO M377**

in its white and neutral version

1k coating **YO M376**

formulated with raw materials compliant with US and Canadian markets regulations and certifications

2k coating **YO M977**

in its white, neutral and clear version

1k textured coating **YO M379**

in two different grains (fine and medium)

2k textured coating **YO M979**

in two different grains (fine and medium)

Vacuum application

1k coating **YO M372**

in its white and neutral version

1k textured coating **YO M362**

in two different grains (fine and medium)

In two simple steps, Rennerplast finish looks perfect.

After having cleaned the surface with compressed air and removed the protective film:

- 1. Apply AP M088 cleaner on the PVC surface, with a microfiber cloth abrasive sponge*
- 2. Spread 125-150 µm of Rennerplast coating in one single coat*





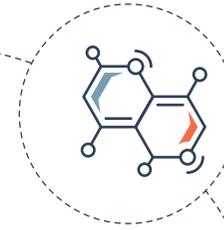


High-definition colour results

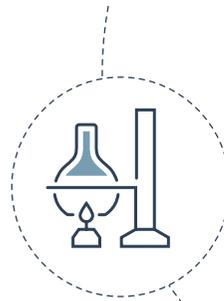
Thanks to Renner Italia's tintometric Color System, Rennerplast offers many advantages:



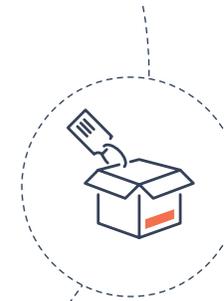
Absolute precision of production and reproduction of the color, by means of volumetric dosing machines



Color formulation in few minutes: starting from white or neutral bases and adding colored pastes



Heat stability



Possibility of keeping lower stocks in the warehouses



Result guaranteed

To facilitate the color preparation, Rennerplast is available in two different versions for each converter:

NTR or neutral: for the preparation of dark colours

SBN or white: for the preparation of light colours

The tintometric system can accurately reproduce all the shades of RAL, NCS, CS and Chroma colour charts, thus offering trendy colour solutions which can satisfy every aesthetic need (textures, two-tone colours, special finishes, aluminium effects etc.)



The compared certifications

AAMA 615-17

Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Plastic Profiles

Rennerplast 1k: YO xxM376

| | | |
|-------|---|---|
| 7.1 | Color uniformity | √ |
| 7.2 | Specular Gloss | √ |
| 7.3 | Dry film hardness | √ |
| 7.4 | Film adhesion | |
| | Dry adhesion | √ |
| | Wet adhesion | √ |
| | Boiling water adhesion | √ |
| 7.5 | Impact resistance | √ |
| 7.6 | Abrasion resistance | √ |
| 7.7 | Chemical resistance | |
| 7.7.1 | Muratic acid (HCl) resistance | √ |
| 7.7.2 | Mortar resistance | √ |
| 7.7.3 | Nitric acid (HNO ₃) resistance | √ |
| 7.7.4 | Detergent resistance | √ |
| 7.8 | Humidity resistance | √ |
| 7.10 | Heat shock resistance | √ |
| 7.11 | Stability to high temperatures and humidity | √ |
| 7.12 | Heat build-up | √ |

Qualité Batiment QB 33

Coated PVC Profiles - Coating Products - Lacquers

Rennerplast 2K: YO xxM977 - YO xxM979

| | | |
|-------|---|---|
| 1.3.1 | Thickness of dry coating film | √ |
| 1.3.2 | Polymerisation of the coating (Resistance to MEK) | √ |
| 1.3.3 | Pencil hardness | √ |
| 1.3.4 | Mortar resistance | √ |
| 1.3.5 | Impact resistance | √ |
| 1.3.6 | Grid adhesion | √ |
| 1.4.1 | Artificial aging (xenon lamp) | |
| | Base colours (3000 h)* | √ |
| | Secondary colours (1500 h)** | √ |
| 1.4.2 | Heat shock resistance | √ |

***Base colors:** group 1: mineral pigments (e.g. RAL 1013); group 2: mineral and organic pigments (e.g. RAL 7016); group 3: organic pigments (e.g. RAL 3005); group 4: metallic pigments (e.g. RAL 9006)

****Secondary colors:** group 5: medium (e.g. RAL 7005); group 6: bright (e.g. RAL 1015); group 7: dark (e.g. RAL 8019); group 8: blue (e.g. RAL 5015); group 9: orange - yellow (e.g. RAL 2010); group 11: green (e.g. RAL 6017)

Quality Assurance RAL-GZ 716

Quality and Test Requirements for window profiles made from PVC-U:
Technical Appendix 4.5 "Section I", part 5: Coated profiles

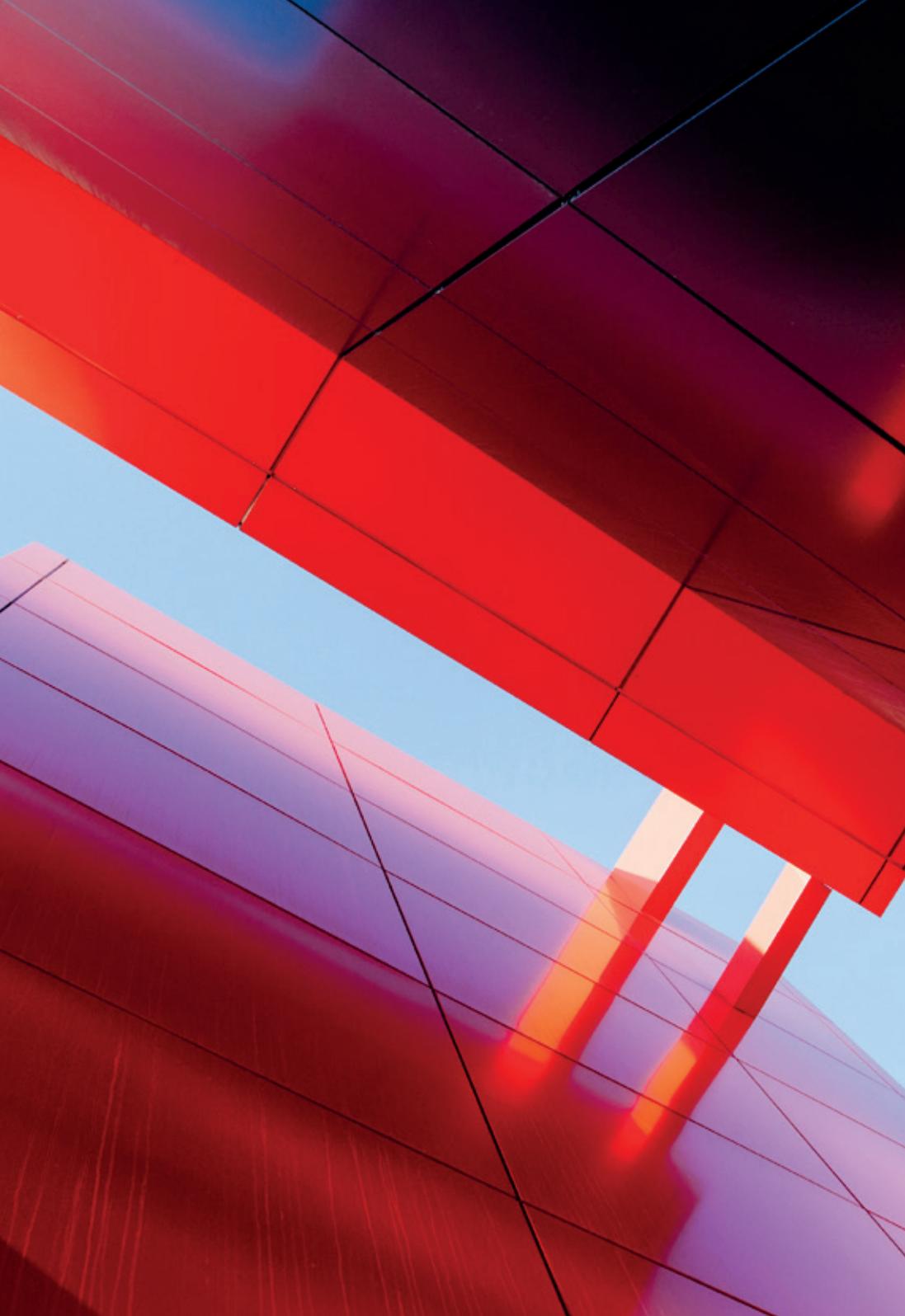
Rennerplast 1k: YO xxM377
Rennerplast 2k: YO xxM977

| | | |
|-----------|--|---|
| 2.2.14.1 | Fastness after artificial weathering | |
| | <i>Climate zone M (8 GJ/m²)</i> | |
| | Visual evaluation | √ |
| | Colourimetric evaluation | √ |
| | <i>Climate zone S (12 GJ/m²)</i> | |
| | Visual evaluation | √ |
| | Colourimetric evaluation | √ |
| 2.2.14.2 | Resistance to weathering after artificial weathering | |
| | <i>Climate zone M (8 GJ/m²)</i> | |
| | Charpy Impact | √ |
| | Adhesion | √ |
| | <i>Climate zone S (12 GJ/m²)</i> | |
| | Charpy Impact | √ |
| | Adhesion | √ |
| part Ila3 | Heat build-up | √ |

Why to choose the coating instead of film

| | COATING | FILM |
|---|----------------------------------|--|
|  | Lighter warehouse | Big stockpiles in warehouse, with risk of expiry |
|  | Small production batches | Wastes of material in small batches |
|  | Even covering of all the surface | Partial covering of the object |
|  | Ultra-fast corrections | Time consuming corrections |
|  | Lower average costs | Higher average costs |





Hi-tech research company

Rennerplast coatings can satisfy any aesthetic and performance need because they have been created inside Renner laboratories. Our chemists work closely with doors and windows manufacturers, as well as with the most qualified producers of professional coating machinery.

Renner researchers analyze and test innovative products, especially in the complex field of water-based and UV curing coatings. The company is equipped with the most modern analytical instruments for the formulation of resins and coatings.



www.renneritalia.com

Via Ronchi Inferiore, 34
40061 Minerbio (BO) Italia
T. +39 051 6618 211 F: +39 051 6606 312
info@renneritalia.com

