

ICA,
the special
coatings
for wood



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ICA, the special coatings for wood

Research and innovation geared towards customer service

ICA – founded in 1971 and based in the central Italian city of **Civitanova Marche**, in the province of Macerata – is a leading name in the **manufacture and marketing of special wood coatings**. ICA has always been, and remains to this day, a private, family-owned business. From the outset, the Paniccia family has provided continuity in management and in the ongoing pursuit of the ICA corporate objectives.

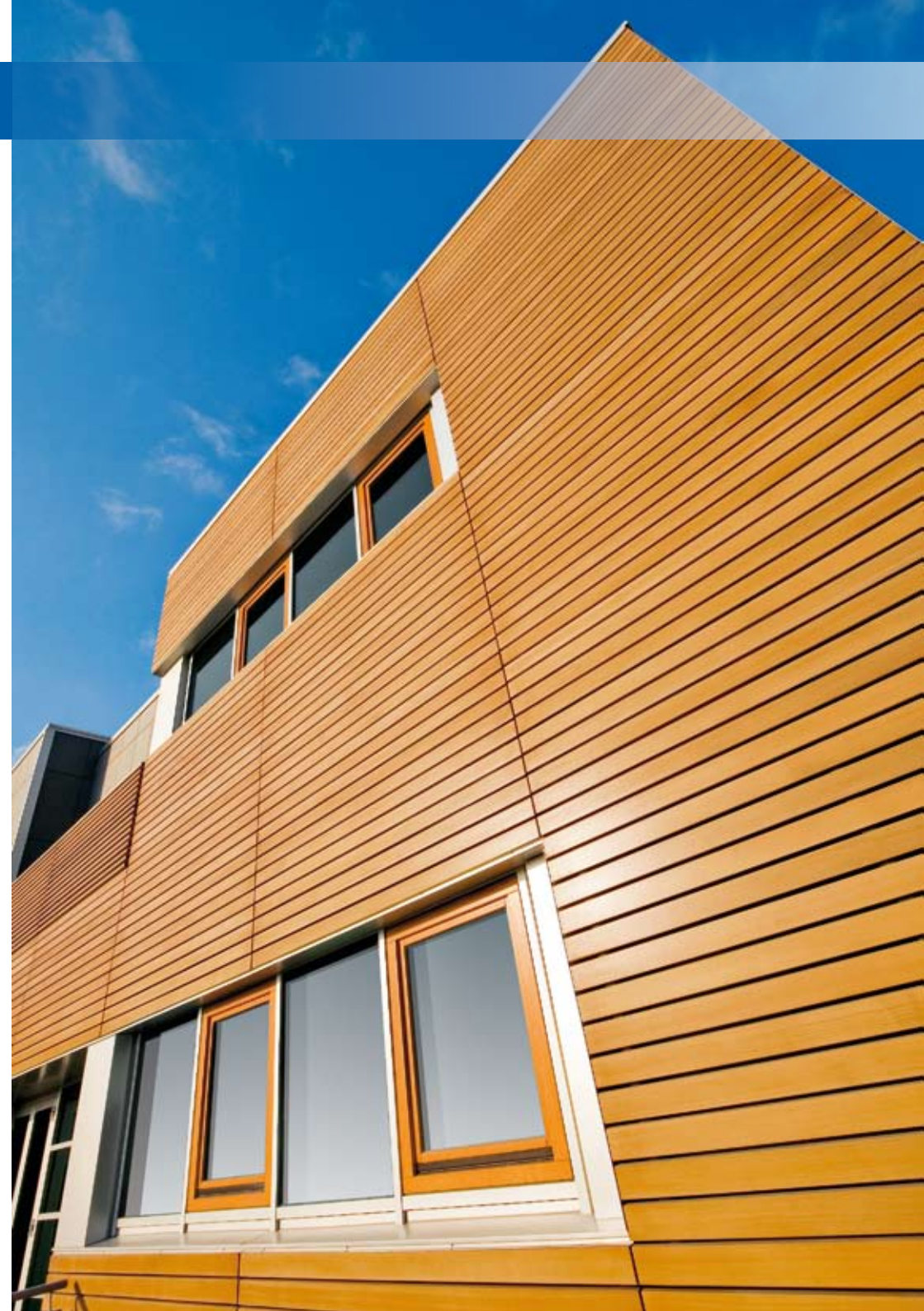
One of ICA main strategic assets is the fact that its corporate culture is based on a commitment to achieving **maximum quality through innovation**. This principle has underpinned the company's every initiative and strategic decision from the very beginning, thus guaranteeing the development of products that are at the cutting edge, both in terms of quality and in terms of technology.

For several decades now, ICA has endeavored to serve its clients by producing a range of highly reliable, top-quality coatings. The company concentrates heavily on researching and developing technical solutions that have what it takes to meet the ever-changing requirements of the market and to help safeguard the environment.

The company's **Research & Development** laboratory is constantly working on the refinement of solutions that have the capacity to make the most of its clients' manufactured products, by highlighting their heritage of style, creativity, design and high quality. The objective is to be a **partner** who has what it takes to provide highly efficient support on the effort to find elements that will allow those clients to stand out from their competitors, reduce their costs and respect the environment to an ever-greater extent.

The **technical support team** offers a highly professional service in Italy and further afield for the design and implementation of new coating cycles and for the resolution of any application issues that may arise. In addition, the **training courses** constitute a crucial element within the wide-ranging, in-depth assistance package that ICA offers its client base.

Ensuring **short turnaround times and on-schedule deliveries** is an essential requirement for ICA, which succeeds in achieving both objectives throughout Italy and beyond. The company's ongoing commitment towards improving its internal processes – encompassing everything from the advanced management of the warehouses to the auditing of the manufacturing operations – is very much geared towards minimizing order despatch times.





Hi-tech coatings with minimal impact on users and the environment

The ICA main objective is to combine **innovation**, **high quality** and **low environmental impact**. The decision to focus squarely on water-based and UV-cured coatings was taken long before the advent of widespread awareness of the need to respect the environment. Indeed, the decision was the outcome of the commitment to safeguarding those who work with the coatings and those who live in contact with the products to which the coatings have been applied.

Thanks to the innovative research activities of the ICA R&D Laboratory, the company has come up with an extensive array of **water-based coatings**, with characteristics that are perfectly comparable to those of more traditional solvent-based coatings. ICA supports its clients as they move from solvent-based to water-based coatings. Together with the technical support team, the laboratory experts are on hand to propose cutting-edge, high-performance products that are able to ensure the best possible results in terms of aesthetics and performance, with no compromise to the production timescales.

In terms of its solvent-based products, the ICA Laboratory has developed an innovative range of **high solid content coatings** specifically for the coating of interior furnishings, complementary furnishings and wooden floors. These products are characterized by a high level of solid residue and by the absence of aromatic organic solvents. The ICA range features water-based and solvent-based products that meet the **IOS-MAT** requirements: “**label-free**” and “**monomer-free**” products.

In line with the deep-rooted concept of safeguarding the health of those who apply and live with its products, the ICA Lab has designed the **Aseptica** range of anti-bacterial coatings. These coatings make the surfaces to which they are applied microbiologically clean. For this reason, they are particularly suitable for the coating of spaces such as children's bedrooms and kitchens, as well as bathroom furnishings and all other furniture that demands to be kept spotlessly clean.

In formulating products for interiors, ICA goes the extra mile to ensure the fulfillment not only of the designer's aesthetic requirements but also of the performance and safety of living spaces. Accordingly, ICA has designed the **Iridea Fire-Retardant** range of coatings, which comply fully with the strict Italian guidelines on the prevention of fires and, in addition to their high levels of chemical and physical performance, also deliver an excellent quality of finish.



A vortex of colors

ICA-brand products have earned an excellent reputation for the coating of wood thanks to the extensiveness of the range and to the great deal of attention that the company focuses on the **world of color**.

The company offers an array of sample books (NCS, RAL, Lacquered and Metallic, Iridea Color stains) that collectively include more than 2,300 colors.

The **tintometric systems** (ICA Color and Stain Mix) have been specifically designed to provide the client with the tools, software and know-how required to produce any color, whether transparent or affording coverage, independently and easily.

Alongside the standard shades, ICA is also able to produce – in next-to-no-time – new **colors formulated at the client's request** and, thanks to its constant research into new pigments, it is also able to offer valuable input on the creation of **innovative, cutting-edge colors**.

The company has a consolidated reputation as a specialist in the creation of water-based and solvent-based **pigmented UV products**, which it makes available in an endless array of tones (from pastel shades and bright colors) and effects (textured, matt, gloss and metallic). One of the main characteristics of ICA-brand pigmented coatings is their high level of coverage, which makes it possible to achieve excellent results on different types of surfaces. Carefully selected raw materials, constantly updated formulations and latest-generation tools combine to ensure the **excellent replicability and consistency of the color**.

The **staining of wood** is another matter to which the ICA laboratory pays a great deal of attention and in which it invests a tremendous amount of passion. The range of water-based and solvent-based stains is unlimited, as is the creativity of those who use the stains, who are open to every possible combination and effect. Indeed, ICA has always been in a position to make available to users the right range of **stains, patinas and anti-aging agents**.

An innovative range recently released by ICA is called **ACTIVIN**, which has been designed to meet the latest interior design requirements. The range encompasses a plethora of **reactive stains for Oak and Chestnut**, which – thanks to the interaction between the stains and the substances contained in the wood fiber – make it possible to achieve unique shades that highlight the wood grain with a very natural effect.



MY LAB: Visualizing an innovative project before its on-site creation

The ICA world is constantly moving – rather like the imagination of the numerous designers and architects who choose the company's water-based coatings. With great conviction and commitment, Italian Coatings works hard to come up with unexplored paths and to contribute, step by step, to substantial progress in the field of design.

The latest milestone reached by the company is the **MY LAB** project – an interactive system whose name reflects the experimental nature of the tool and its continuous evolution in support of those who design buildings, furnishings and interiors and who want to develop the idea that will then be created on site. The system works by means of all-new mono and bicomponent metallic colors – the so-called **Liquid Metals** – which are **water-based** with a view to reducing their environmental impact as far as possible.

With **MY LAB**, ICA invites users to make the most of color, coming up with balanced, evocative, pearlescent combinations that revolutionize the concept of design. This is where the true magic of color lies: the art of creating and combining colors to make them the principle features of the domestic environment, endowing those spaces with a personal touch and enabling you to feel right "at home". The new **Liquid Metals** are ideal for the most creative of uses – those that are very much ahead of the curve – and can be applied to both regular and irregular surfaces.



The ICA R&D Laboratory is engaged, on a daily basis, on the creation of paints, patinas, anti-aging agents and special-effect coatings, with a view to offering its clients new solutions that are aligned with the latest developments in the classical furniture-production sector. The technical team collaborates with the leading furniture-makers on defining coating products, cycles and effects. Therefore ICA has become the partner of choice for the classical furniture industry.

Performance and aesthetic advantages

Depth and transparency

During the design phase of all the ICA products intended for use in the furniture sector, a great deal of attention is focused on the issue of transparency. The use of dark shades makes it necessary to use special products that are capable of bringing out the grain and color of the wood, conferring extra brilliance and depth to the appearance of the coated article. This aspect is particularly important in the move towards water-based products: innovation should never demand that compromises be made to the features that characterize an ancient tradition.

Adhesion

Ensuring that the coating cycle has the right level of adhesion is crucial. Often, the composition of these coating cycles involves the overlaying of numerous coats of different products, which could compromise adhesion and, therefore, the final result. ICA always takes full account of this aspect when designing its coating cycles.

Resistance to yellowing

The staining of furniture requires the development of monocomponent solvent-based and water-based coatings that can guarantee excellent color fastness both in the light and in the dark. In the ICA Lab, the technicians have developed monocomponent lacquered and transparent coatings that combine ease of use with excellent light stability and resistance to yellowing.

Regulatory standards and testing

Temperature fluctuation resistance	UNI 9429
Adhesion	UNI EN 2409
Color fastness to light	UNI EN 15187
Anti-bacterial activity	ISO 22196:2007

Traditionally, one of the main branches of the ICA product family has been geared squarely towards modern furniture-makers. The company's approach is based on full-scale collaboration with the client, all the way from the design phase to the post-sales support phase. Together with the client, ICA defines the requisite features of the new products, and then closely monitors their development and subsequent utilization. This makes it possible for the company to remain constantly up to date in relation to current trends, to come up with new ideas and to provide designers with valuable support.

Performance and aesthetic advantages

Smoothness to the touch

The ICA R&D Laboratory works intensely on perfecting coatings that deliver excellent aesthetic results, as well as the best possible performance. A piece of furniture is made not just to be looked at, but also touched, used and lived with, and for this reason the ICA products are designed to bring out the natural beauty of wood and to offer a velvety effect that is smooth to the touch, in addition to brilliance and durability. In short: aesthetic characteristics that also have chemical, physical and functional aspects.

Surface resistance

The surface effect, whatever it may be, must not come at the expense of functionality. The scratch resistance and hardness of the ICA top coats make them suitable for all types of uses.

Brightness

The company's highly innovative products – such as its water-based coatings – as well as its more traditional transparent and lacquered polyester coatings, all fully satisfy the increasing demand for the high-gloss lacquering of furniture. ICA specializes in the formulation of matt and gloss UV coatings, which are available in an infinite array of shades.

Resistance to yellowing

Light and dark fastness are both fundamental for those who work with modular systems.

Limited swelling of the wood fiber

The use of porous wood species has led to the development of specific products for oak and ash. The ICA water-based and solvent-based base coats and top coats with very limited swelling of the wood fiber make it possible to achieve excellent results in terms of pore-marking and pore-wettability, with no risk of unappealing color variations or surface defects.



Regulatory standards and testing

Resistance to cold liquids	DIN 68861
	UNI EN 12720
Scratch resistance	UNI 9428
Temperature fluctuation resistance	UNI 9429
Adhesion	UNI EN 2409
Color fastness to light	UNI EN 15187
Pencil hardness	ASTM 3363
Coating of toys	EN 71.3

Thanks to the ICA wood coatings today it is possible to have a kitchen in which the surface plays the leading role. The possibility to highlight the beauty of the wood as well as to combine and create color effects makes you the main character of the domestic environment, endowing those spaces with a personal touch and enabling you to feel right “at home”. The ICA wood coatings become then the final “layer” that imbues Italian-made products with even greater aesthetic impact.

Performance and aesthetic advantages

_____Naturalness of the wood

The company’s low-opacity coatings highlight the naturalness of the wood and the beauty of the grain, making users feel as if they are touching an “uncoated” wood. In addition, the water-based coatings revitalize the wonderful shades of the wood.

_____Chemical/physical resistance

No other area in the home is as exposed to aggressive substances as the kitchen. For this reason, ICA-brand coatings offer high levels not only of aesthetic impact but also of stain resistance.

_____Mechanical resistance

Pieces of furniture intended for use in “critical” environments such as the kitchen warrant additional design input. The coating film must be able to resist accidental impacts, scratches and thermal stresses in order to guarantee excellent surface hardness. For this reason, ICA-brand products are tested to ensure compliance with the most stringent international standards of mechanical resistance.

_____Water-based and UV gloss cycles

The ongoing evolution of the ICA range has led to the development of bicomponent water-based and UV pigmented gloss cycles that deliver exceptionally high levels of chemical/ physical performance and can be successfully integrated with traditional solvent-based coatings.

Regulatory standards and testing

Resistance to cold liquids	DIN 68861
	UNI EN 12720
Scratch resistance	UNI 9428
Temperature fluctuation resistance	UNI 9429
Adhesion	UNI EN 2409
Color fastness to light	UNI EN 15187
Pencil hardness	ASTM 3363
Coating of toys	EN 71.3
Anti-bacterial activity	ISO 22196:2007

Interior doors are no longer viewed as a simple feature that serves to separate two spaces – rather, they have become an integral part of any interior design; sometimes doors are designed to have minimalist characteristics, whereas in other contexts the intention is for them to stand out. Door manufacturers work with an extensive range of the ICA products – from brushable polyesters to water-based lacquered UV top coats for closed - and open-pore applications – with excellent results that make ICA-brand coatings the solution of choice in the industry. An almost endless variety of models, wood species and finishes is available, and as a result, ICA-brand products have been adapted to an extremely wide spectrum of uses.

Performance and aesthetic advantages

_____ Chemical/physical resistance and tendency to trap dirt

When formulating new products, the technicians at the ICA R&D Laboratory pay close attention to the sector of use, working hard at all times to combine aesthetic appearance and chemical/physical performance. In relation to door manufacture, the coating serves to “defend” the door against the use that is made of it, day in, day out. For this reason, the ICA products for doors undergo extensive chemical-resistance testing (stains, detergents, etc.).

_____ Mechanical resistance

Mechanical resistance is an essential characteristic for coatings that are called upon to protect doors, which are subject to frequent stresses. For this reason the ICA R&D Laboratory conducts stringent tests to confirm the excellent surface hardness of the coatings.

_____ Adhesion and stability

The sensitivity of doors to dimensional variations, and the fact that they are constructed using different types of materials, together make it necessary to use coating products that can adapt to the physiological movement of the surface without separating or cracking. Accordingly, the ICA products are evaluated in relation to these risks.



Regulatory standards and testing

Resistance to cold liquids	DIN 68861
	UNI EN 12720
Scratch resistance	UNI 9428
Temperature fluctuation resistance	UNI 9429
Adhesion	UNI EN 2409
Color fastness to light	UNI EN 15187
Pencil hardness	ASTM 3363
Tendency to trap dirt	UNI 9300
Anti-bacterial activity	ISO 22196:2007



Furnishings



Furnishings encompasses a wide variety of products (tables, chairs, turned objects, baseboards, borders, etc.). In order to differentiate these products from the rest of the interior design of which they are part, designers have come up with a wealth of special effects specially conceived to make them stand out.

Performance and aesthetic advantages

Tactile sensation

The immense range of special effects available endows wood with a plethora of tactile sensations. Textured effects, for example, make wood feel rough to the touch, whereas soft-touch effects make it feel rubbery and smooth.

Chemical/physical resistance

ICA has developed a number of special coatings for this sector, all of which afford excellent chemical/physical resistance. Specifically, these coatings are capable of avoiding the problems that commonly occur in the coating of edges, stairs, etc. In designing these coatings, there is a particular focus on coverage, adhesion and the possibility to apply the products vertically.

Adhesion

Adhesion is an essential requirement for a coating that is called upon to protect furnishings subject to impacts and stresses, such as profiles, edges, baseboards, stairs, seats and tables. All of the products undergo stringent testing of their adhesive properties, both before and after the phase of accelerated aging.

Regulatory standards and testing

Resistance to cold liquids	DIN 68861 UNI EN 12720
Scratch resistance	UNI 9428
Temperature fluctuation resistance	UNI 9429
Adhesion	UNI EN 2409
Color fastness to light	UNI EN 15187
Pencil hardness	ASTM 3363
Tendency to trap dirt	UNI 9300
Abrasion resistance	UNI 9115 UNI EN 13696
Coating of toys	EN 71.3
Anti-bacterial activity	ISO 22196:2007



Traditional and pre-finished wooden floors

Wooden floors endow rooms with character, warmth and value. There are numerous wood species and just as many types of wooden flooring. Each type of floor stands out in terms of its technical characteristics and its finish. Some wooden floors on the market have had a full-coverage coating applied to them, so that the wood species underneath is no longer visible, other floors are treated with products that retain the “natural” appearance of the wood, others create unique effects. With wooden flooring, the look is as important as the substance, but in any case, since the floor will be subject to types of stress that other furnishings do not undergo, it must always be protected.

Performance and aesthetic advantages

Antiqued effect

ICA has designed coating cycles that endow the floor with a particular “antiqued” effect that is ideally suited to the treatment of open-pore planks, but can also be used on any other type of flooring.

Naturally unique effects

The ACTIVIN range has been specially designed to meet the current needs of interior designers: the interaction between the water-based ACTIVIN stains and the substances contained in the wood fiber makes it possible to achieve unique colors, bringing out the grain in a very natural-looking way. The overall aesthetic impact is almost “three-dimensional”. The excellent penetration into the wood fiber let the stain adhere very effectively, avoiding a situation in which the original color of the wood is revealed even if the wood becomes marked or scratched. The ACTIVIN stains - a range of 16 colors - deliver excellent performance, thereby broadening out the creative possibilities available to designers and interior-design specialists while also ensuring eco-sustainability.

Chemical/physical resistance

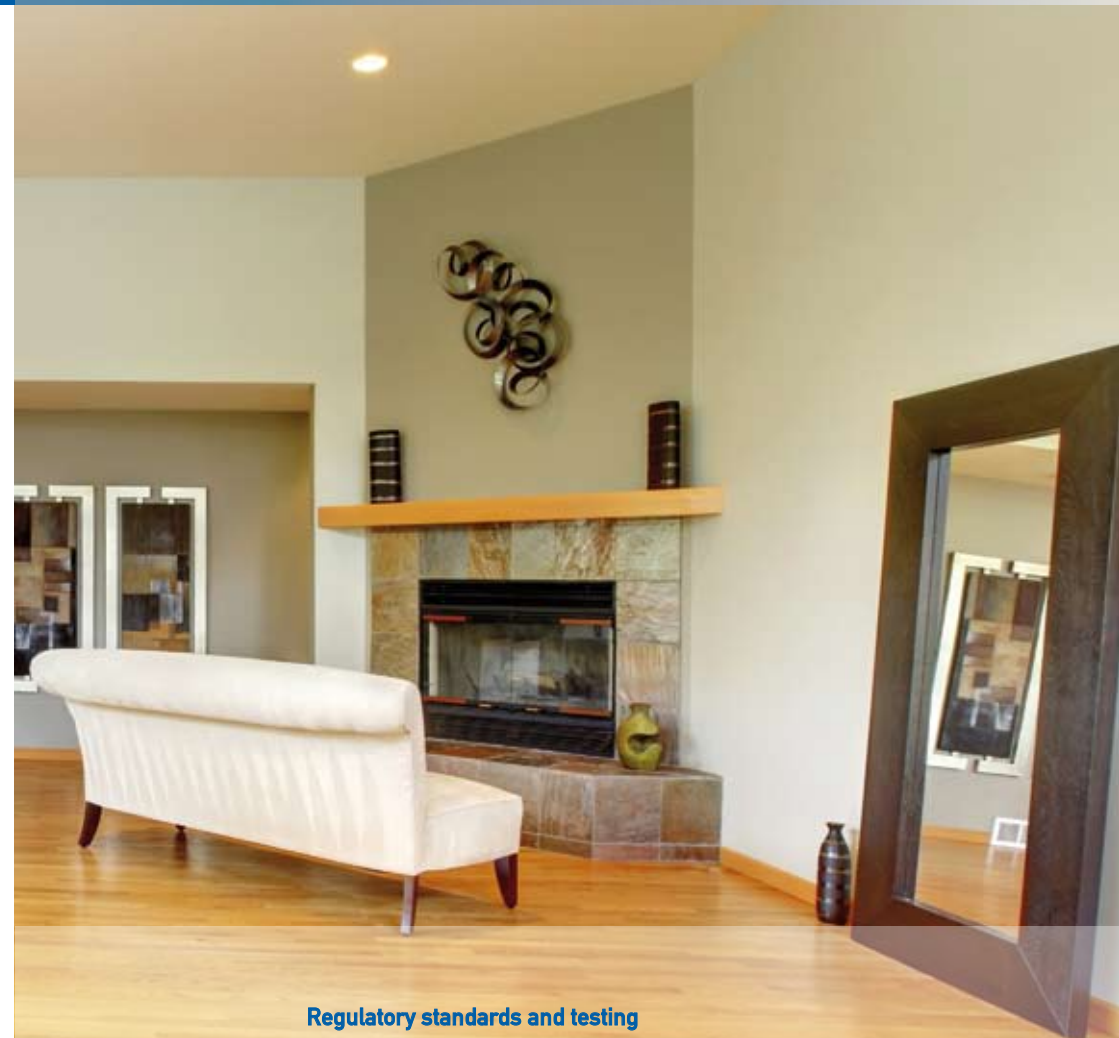
ICA-brand products are able to protect the wood not only against the accidental spillage of drinks and other liquids but also against the most common detergents.

Mechanical resistance

The company's products have been formulated to cope with the stresses to which a floor is normally subject. Resistance to abrasion and surface hardness are essential pre-requisites in the development of these products. It is for this reason that the ICA laboratory has created a specific range of nanotechnological coatings for wooden floors, which guarantee excellent performance.

Adhesion

Adhesion and flexibility are very important. As furniture, chairs and other objects are moved across a wooden floor, the coating layer may be removed, leaving the wood unprotected and subject to rapid degradation. All ICA-brand products are carefully designed to ensure that they adhere as strongly as possible to the underlying surface.



Regulatory standards and testing

Resistance to cold liquids	DIN 68861
	UNI 10944
Scratch resistance	UNI 9428
Temperature fluctuation resistance	UNI 9429
Adhesion	UNI EN 2409
Color fastness to light	UNI EN 15187
Pencil hardness	ASTM 3363
Tendency to trap dirt	UNI 9300
	UNI 9115
Abrasion resistance	UNI EN 13696

Today, a wide range of materials are used to manufacture pieces of furniture, and glass is becoming an increasingly popular option. Myriad of water-based and solvent-based – including transparent, (full and mid-coverage) lacquered, metallic and special effects products – are available from ICA.

Performance and aesthetic advantages

Reduction of environmental impact

The ICA-brand glass range is composed of odorless, monocomponent water-based coatings, which – due to their minimal content of volatile organic substances – make it possible to comply with the legislation on the limitation of solvent emissions into the atmosphere.

Unlimited range of colors and effects

The variety of effects that can be created with these coatings is extensive. This represents a veritable revolution in the glass sector. Customers can choose from three different sample books (ICA, RAL and NCS) that collectively encompass more than 2,300 colors, all of which can be faithfully reproduced thanks to the ICA Color tintometric system.

Mirror effect

Thanks to their ongoing research and development, the ICA Laboratories have succeeded in reproducing the mirror effect by spraying a monocomponent metallic coating – GPMIRROR – onto a glass surface. The best aesthetic performance of this effect is achieved on molded products.

Security

ICA revolutionary GPSAFE is a transparent or colored water-based product that is applied like a normal coating (by spraying or curtain-coating) and that enables glass and mirrors to be made safe. It forms a thin film that, if the glass or mirror cracks, holds all of the shards in place, thereby preventing dangerous cuts or other accidents.

Chemical/physical resistance

ICA water-based and solvent-based coatings exceed all of the most important adhesion and chemical/physical resistance tests.

Regulatory standards and testing

Cross-cut adhesion test	EN ISO 2409
Adhesion under damp conditions	Internal method
Pull-off test	UNI 9240
Chemical resistance	UNI EN 12720
Color fastness to light	UNI EN 15187
Impact resistance	UNI EN 12600:2004
Anti-bacterial activity	ISO 22196:2007



Exterior frames and shutters

The ARBOREA product range, which has been specifically designed for exterior uses, offers users maximum durability. The problem of combining aesthetics and performance in exterior products is well-known, and the ICA-brand products were created in an attempt to solve this problem.

Performance and aesthetic advantages

Long-lasting beauty

Thanks to innovative accelerated-aging tests, which make it possible to analyze product performance very thoroughly, the ICA-brand ARBOREA range for exterior frames and shutters seamlessly integrates long-lasting beauty and effective protection.

High-quality formulation

ARBOREA products contain preservative substances that block the proliferation of fungi and mold, as well as UV filters and pigments that protect the wooden surface over the long term and prevent yellowing and the vitrification of the coating film.

Tested and guaranteed products

The range of exterior products undergoes stringent laboratory testing, not only during the formulation phase but also through subsequent product testing from single batches, with a view to monitoring quality and consistency. In addition, third-party inspections are also commissioned, which are conducted by certified external bodies on the basis of the most stringent regulatory standards (including the relevant EU standard, UNI EN 927).

Nanotechnological coatings

The ARBOREA range encompasses a series of transparent nanotechnological water-based coatings, which represent the fruit of the high-level experiments carried out by the company over many years in the field of nanomaterials. These coatings offer outstanding transparency and resistance to exterior agents.



Regulatory standards and testing

Blue-stain resistance	EN 152
Rot resistance	ENV 839
Larvicidal effect	EN 46-1
Natural aging	EN 927-3
Steam permeability	EN 927-4
Water permeability	EN 927-5
Artificial aging	EN 927-6
Resistance to cold liquids	UNI EN 12720
Resistance to blocking	EN ISO 4622



Products	Type		Transparent		Pigmented		Textured	Metallic and special effects
	Water	Solvent	Matt	Gloss	Matt	Gloss		
Additives	√	√						
Catalyzers	√	√						
Stains		√						
	√							
Thinners		√						
Pastes		√ (PU)						
		√ (ACR)						
		√ (PE-UV)						
	√							
Nitro-cellulose coatings		√	√	√	√	√	√	
Coatings for exteriors	√		√		√			
		√	√	√				
Coatings for interiors	√		√	√	√	√	√	√
Coatings for glass	√		√		√		√	√
Pigmented coatings and special effects		√			√	√	√	√
Polyester coatings		√	√	√		√		
Polyurethane and acrylic coatings		√	√	√	√	√	√	√
UV coatings		√	√	√	√	√		√
	√		√	√	√	√	√	√

Tintometric systems	Certifications and standards
STAIN MIX	
STAIN MIX	
ICA COLOR	EN 71.3
ICA COLOR	EN 71.3
ICA COLOR	EN 71.3
ICA COLOR	EN 71.3
	EN 71.3
ICA COLOR	EN 927-3/4/5/6, EN 152, ENV 839, EN 46-1, UNI EN 12720, EN ISO 4622
ICA COLOR	Food-grade certification, EN 13419/01, EN 71.3, EN ISO 16000-9-06, IOS-MAT 0066, ISO 22196:2007
ICA COLOR , STAIN MIX	EN 71.3, ISO 22196:2007
ICA COLOR	EN 71.3, ISO 22196:2007
	EN 71.3
ICA COLOR	RINA certification, Certification of fire-retardancy, EN 71.3, ISO 22196:2007
ICA COLOR	EN 71.3, ISO 22196:2007
ICA COLOR	EN 71.3, ISO 22196:2007



Industria Chimica Adriatica SpA

Via Sandro Pertini, 52_62012
Civitanova Marche (MC)_Italy
Tel. +39 0733 8080_Fax +39 0733 808140
www.icaspa.com_info@icaspa.com

Italcoats

101/C, Avani Sagar, Dadabhai 2nd Cross Lane
Opp. C.N.M. School, VileParle_W_Mumbai 400056_India
Tel. +91 22 61312345_Fax +91 22 26703416
www.italcoats.com_info@italcoats.com