

TEHKNICAL DATA SHEET

Product description:

Description:	IG5100 is an alkyd resin based protective lacquer used for the protection of hardwood and softwood parts.
Use:	<p>IG5100 series products are used for the protection of wooden parts used in exterior and interior environments, by applying 1-2 coats that penetrate the wood, providing protection against atmospheric factors.</p> <p>IG5100 series products ensure up to 8 years of protection, depending on climatic conditions and the nature of the surface, product's method of preparation, conditions, application method and the number of coats applied (as per the annex on the duration of protection depending on the degree of exposure).</p> <p>We recommend re-coating every 2-3 years to refresh surfaces and extend the life of the system.</p> <p>For exterior use, IG5100 series products can be used to cover and protect cabins, exterior doors and windows, garden furniture, fences. IG5100 series products ensure the protection of wooden surfaces used outdoors under the conditions of risk class 3, according to EN 335-1.</p> <p>For a transparent coating, which highlights the wood grain, use L5306 product (Professional Yacht Alkyd Lacquer) to protect the surface prepared with 1- 2 coats of IG5100 series product.</p> <p>New wooden surfaces exposed to the outside will be primed beforehand, with 1 layer of IGA5101 primer.</p> <p>For interior use, IG5100 series products can be used to cover and protect ceilings, attics, wooden constructions, wooden fasteners, basement stalls, interior walls (where required), etc.</p> <p>It is recommended to apply IG5100 series products in 2 coats according to the specified consumption, so that the quantity of lacquer applied is fully absorbed into the surface.</p> <p>IG5100 series products are not recommended for hive protection.</p>
Main characteristic elements:	<ul style="list-style-type: none"> • ensure greater durability of the wood • high UV resistance for the coloured versions • good resistance to soiling • reduce drying and swelling of wood • the coloured versions give a pleasant look that highlights the natural structure of the wood. • easily absorbed by wood • penetrates deep into the wood
Assortments:	<ul style="list-style-type: none"> • IG5101F - Colourless • IG5112 - Pine • IG5130- Oak • IG5188 - Dark oak • IG5175 - Teak • IG5181 - Rosewood • IG5170 - Cherry • IG5179 - Medium Walnut • IG5173 - Mahogany • IG5198 - Wenge • IG5141 - Emerald green • IGX510S1001 (IG5110-1) - White • IG5178-1 - Brown
Compatibility:	<p>It is manufactured in colourless version - IG5101F or coloured version - IG51XX (where xx is the colour code) according to its own chart or the customer's sample.</p> <p>It is not recommended to mix IG5100 with other products (other products = thinners, cleaning agents, other than those recommended by the manufacturer).</p>
Shelf life in packaging:	<p>The shelf life is 7 years from the date of manufacture for IG5100, IG5101F, and 24 months for IGX510S1001 and IG5178-1, provided the packaging and storage provisions are complied with. Depending on storage conditions, it is recommended to mix the product before use.</p>

Packaging:

The IG5100 series product is packed in 0.75L, and 2.5L metal cans and 10L metal drums with a label affixed.
IGX510S1001 and IG5178-1 products are packaged in 17kg net capacity metal drums with a label affixed.

Storage:

in closed, dry, covered, ventilated spaces, protected against weather and solar radiation, away from fire sources, at temperatures between 5-25°C.

Shipping:

The products are shipped by covered means of transport according to the regulations in force.

Certification:

The product has a technical agreement drawn up by Urban-Incerc Bucharest and issued by the Permanent Technical Council for Constructions - Bucharest.

TECHNICAL QUALITY CHARACTERISTICS

Table no.1

Item No.	Name of characteristic	MU	Characteristic value		Method of analysis
			IG5101F	IG51XX	
a) Liquid product characteristics					
1.	Appearance	-	homogeneous liquid, free of mechanical impurities		visual
2.	Density, 23°C	g/ml	0.87 ± 0.01	0.95 ± 0.01	SR EN ISO 2811-1:2016
3.	Non-volatile substance content, 25 min., 125°C	%	36 - 38	46 ± 1	SR EN ISO 3251:2019
4.	VOC, max.	g/l	580		SR EN ISO 11890-1:2007
b) Film characteristics					
1.	Appearance on wood, 23°C	-	transparent		visual
2.	Color on wood	-	colourless	according to the chart	visual
3.	Gloss on wood, 2 coatings	GU	70-75		SR EN ISO 2813:2015
4.	Drying time at 23±2°C, 50±5% relative humidity: - touch dry (Type B) - hard dry (Type D)	h	- 7	max. 9 max.16	ASTM D 1640/ D1640M-2018

Table no. 2

Item No.	Name of characteristic	MU	Characteristic value		Method of analysis
			IGX510S1001 (IG5110-1)	IG5178-1	
a) Liquid product characteristics					
1.	Appearance	-	homogeneous liquid, free of mechanical impurities		visual
2.	Density, 23°C	g/ml	0.915 – 0.920	0.8 ± 0.05	SR EN ISO 2811-1:2016
3.	Content of non-volatile substances, 25 min., 125°C	%	33 ± 2	23 – 25	SR EN ISO 3251:2019
4.	VOC, max.	g/l	580		SR EN ISO 11890-1:2007
b) Film characteristics					
1.	Appearance on wood, 23°C	-	transparent		visual
2.	Color on wood	-	according to the chart		visual
3.	Gloss on wood, 2 coatings	GU	70-75		SR EN ISO 2813:2015

Technical data:

4.	Drying time at 23±2°C, 50±5% relative humidity: - touch (Type B) - depth (Type D)	hours	max. 10 -	max. 7 max. 10	ASTM D 1640/ D1640M-2018
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Application details:

It is neither necessary nor recommended to dilute the product for application.

Method of application:

- brushing
- immersion
- air spraying (under professional conditions)

Specific consumption:

- **10 - 14 m²/l/coat**
Practical consumption depends on application conditions (surface geometry, application method, environmental conditions, nature of wood).

Drying times:

Drying of the lacquer coating can normally occur at a temperature of 10-30°C or it can be accelerated by placing the applied objects in a tunnel with forced air circulation at 40-50°C. The temperature must not exceed 50°C. In a tunnel with forced air circulation at 40-50°C, drying for re-coating is obtained in min. 3 hours, and the coating can be made operational 24 hours after removal from the tunnel. Drying times may vary depending on the porosity and dryness of the wood, the specific consumption used, ventilation and temperature.

Preparation of the product for application

Product preparation:

Before opening the packaging, remove all traces of water, liquid/solid impurities, which may compromise the final appearance of the coating, as well as its external resistance. The product is very well homogenized in the original packaging, ensuring in particular the redispersion of any sediment formed. All mixing and homogenizing operations should be performed at temperatures between 10-30°C. After homogenisation, the consistency of the product should be checked and it should be very fluid. Product preparation for application consists in obtaining its homogeneity and bringing it into the container from which it is applied. The product is conditioned at 10-30°C.

Sublayer preparation:

The product of the IG5100 series is applied to hard wood/hardwood supports, in the hardwood category we find essentials such as: oak, walnut, beech, mahogany, ash, cherry, palin, and softwood/softwood surfaces: softwood: fir, spruce, cedar, yew, juniper, pine; it can also be applied on new or old wooden supports, previously protected or unprotected, located outside or inside, in above-ground constructions, without permanent contact with water or soil. Before application, in order to obtain good results in terms of protective and decorative characteristics, a proper preparation of the support is necessary, regardless of its history.

Previously coated surface:

- If the support was previously protected with an opaque paint, it is necessary to completely remove the paint with DK500 or by soaking it with a clean cloth with thinner D203 and scraping with a scraper, until the wood is clean. The surface is leveled with a fast-drying putty for wood. It is sanded with abrasive paper with 200-240 grit, then the surface is dusted.
- If the support was previously protected with a protector or colorless stain, check the integrity and appearance of the structure. Wipe the entire wooden surface with a clean cloth soaked with D551/D553 thinner in order to remove grease, dust and other impurities deposited during exploitation.

<p><u>New unprotected surface:</u></p>	<p>Before application, the wood must be cleaned, degreased with a cloth soaked with D551, D553 thinner to remove grease stains, oils and other impurities that can compromise the appearance of the coating and its life. Fill holes, cracks and traces of faulty processing with a quick-drying wood putty. Sand the wood along the grain with 200-240 grit sandpaper and then remove the dust from the surface. Regardless of the previous protection of the wooden surface and the treatment used, before applying the first coat of lacquer it is necessary to sand the surface of the sublayer with 280-320 grit sandpaper along the grains; then remove the dust from the surface. New wooden surfaces exposed to the outside will be primed beforehand, with 1 layer of IGA5101 primer.</p>
<p><u>Application conditions:</u></p>	<ul style="list-style-type: none"> • environment temperature: 10-30 °C • relative humidity: max.70% • surface humidity: 12±2%
<p><u>Application instructions:</u></p>	<p>! Application with unsuitable tools may result in inappropriate appearances and thicknesses compared to those specified in this technical data sheet. ! It is not recommended to apply the product on already treated/impregnated wood surfaces without prior testing. !It is not recommended to apply the product on wooden surfaces exposed to direct sunlight. !It is not recommended to apply water-based products with solvent-based products in the same system!</p>
<p><u>Methods of application:</u></p>	<p>Application of IG5100 series products can be done by: brushing, immersion and air spraying (under professional conditions). Application is made to the specified consumption, depending on the method of application, consumption being higher for more absorbent (softwood) wood species. When using a coloured IG5100 product, it should not be applied in large quantities at one time, otherwise areas of varied, uneven colouring may appear or drying may be delayed. It is recommended to apply in 2 coats, at lower specific consumption, so that the amount of lacquer applied once is fully absorbed into the surface. If necessary, remove any excess of IG5100 product immediately by wiping with a clean cloth. For a more intense colouring, apply several coats, while for a less intense colouring, mix the coloured product IG51XX before application with the colourless product IG5101F. Before application, it is recommended a separate colour test on a similar surface. The IG5100 product is applied depending on the classes of use in the recommended systems with recoating every 24 hours between layers. The film can be put into operation at min. 72 hours from the last application. It is recommended to refresh the surface every 2-3 years.</p>
<p><u>Application systems:</u></p>	<p>According to SR EN 335:2013, we have the following systems:</p> <ul style="list-style-type: none"> • use class 1 (indoor, dry): 2 layers of IG51XX • use class 2 (indoor or sheltered, without exposure to the weather; possibility of water condensation): 1 layer of IGA5101 + 2 layers of IG51XX • use class 3 (exterior, above ground, exposure to weather): <ol style="list-style-type: none"> 3.1. Short-term humidification conditions: 2 layers of IGA5101 + 2 layers of IG51XX 3.2. Long-term humidification conditions - severe environment: 2 layers of IGA5101 + 2 layers of IG51XX + 1 layer of L5306
<p><u>Remark:</u></p>	<p>In case of more absorbent unprotected new wood (softwood), it is recommended to apply a coat of IGA5101 for exterior applications; the re-coating time should be 5 hours.</p>
<p><u>Security Data:</u></p>	<p>See the product safety data sheet.</p>
<p><u>Occupational safety:</u></p>	<p>All handling, shipping, storage and use operations must be carried out in full compliance with fire prevention, occupational health and safety and hygiene regulations. The following are prohibited: the presence of any source of fire, painting in premises without proper ventilation, direct skin contact with the product, prolonged inhalation of vapours, ingestion of the product.</p>

Environmental protection measures:


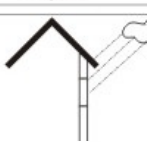
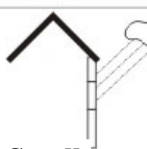
Accidental product spills can be caused by failure to follow the product packaging methodology or by improper handling and storage. In these cases the spilled product is collected and recovered as far as possible. Depending on the amount of substance spilled, the damaged surface is wiped with suitable textiles (ideally cotton) or soaked with a layer of sand. If all handling, shipping and storage operations are carried out according to the rules of occupational safety and fire prevention for flammable and toxic products, there will be no endangering conditions for human health and safety.

Note:

All these data are of general nature regarding the performance and use of the product, therefore we recommend testing the product under the conditions of the beneficiary's own application technology. For further clarification, please contact the manufacturer.

ANNEX 1

Duration of protection according to the degree of exposure

Eaves width L	Installation method	Building height H1, H2	Climate conditions*		
			Mild continental climate	Maritime climate < 500 m	Mountain climate > 500 m
 Large > 1,5 m	Buried installation Case A	< 8 m	I	I	I
		8-20 m and more	I	I	II
	Wall installation Case B	< 8 m	I	I	II
		8-20 m and more	I	I	II
 Medium 0,5-1,5 m	Buried installation Case A	< 8 m	I	II	II
		8-20 m and more	I	II	II
	Wall installation Case B	< 8 m	II	II	III
		8-20 m and more	II	II	III
 Small < 0,5 m	Buried installation Case A	< 8 m	II	II	II
		8-20 m and more	II	II	II
	Wall installation Case B	< 8 m	II	III	III
		8-20 m and more	II	III	III

I. Mild conditions; II. Average conditions; III. Extreme conditions

SYSTEM DURABILITY	Class	Transparent
	I	8 years
	II	5 years
	III	3 years

