



we care for wood

Impralit ACQ 1900 UK Technical Data Sheet

Issued: November 2015

1. Product Description

Type of product	Liquid, water miscible wood preservative concentrate based on copper and a quaternary ammonium compound dissolved in an amine solution.
Active ingredients	9.5% Copper 4.8% Alkyldimethylbenzylammoniumchloride (ADBAC)
BPD and REACH	ACQ 1900 conforms to current Biocidal Product Regulation, and REACH requirements.
Effectiveness	Gives preventive protection to wood against wood-destroying fungi and insects provided ACQ 1900 is applied in accordance with the instructions set out in this document and as otherwise directed by Impra Wood Protection.
Fields of Application	ACQ 1900 may be used in Hazard Classes 1, 2, 3 and 4, according to EN 335-1. e.g. roof timbers, framing, joists, cladding, decking, summerhouses, garden wood, fences, posts, palisades, poles etc. See specific application rates in section 3 For specialist applications contact Impra WP.
Colour	ACQ 1900 and its solutions are a clear blue liquid.
Container size	1,140kg IBC container. Bulk tanker 22,000 kgs

2. Technical Data

Density at 20°C	Approx. 1.2 g/m ³
pH Value	~ 10
Flash point	Not applicable
Viscosity	Thin liquid
Odour	Slight amine odour. The treated timber has no odour after drying.
Compatibility with materials	ACQ 1900 and its solutions are incompatible with acids. Do not mix with other wood preservative products. Contact our Technical Department on initial use. ACQ 1900 may dissolve copper, zinc, aluminium and their alloys (e.g. brass / bronze etc). Normal working solutions (2-6%) will not cause significant corrosion to iron or steel. Refer to: <i>Recommendations on Fixings and Fasteners</i> .

3. Directions For Use

Application Methods	ACQ 1900 is approved for application to wood by Industrial Vacuum Pressure Impregnation.
Application Concentration	The application concentration must be adjusted to achieve the specified retention for the type of wood being treated and for the intended purpose of the treated wood. Concentration for vacuum pressure method usually falls between 2–6%.

Preparation of a Dilute Solution	ACQ 1900 is soluble in water in all proportions. To prepare 1000 kgs of a 3% solution, add 30 kgs of ACQ 1900 to 970 kgs of water while stirring continuously. It is essential that you contact our Technical Department for advice on mixtures with other solutions.
Checking the Solution Concentration	It is the treater's responsibility to check the solution concentration of every treatment using a very accurate and simple to use titration kit, or a refractometer, available from Imprá or from independent suppliers. The result should be recorded on a "Charge Sheet". If necessary, the concentration should be adjusted before use, to comply with the required specification of the wood being treated.
Mouldex	Mouldex is recommended at 1 to 2 litres of Mouldex per 1000 litres of ACQ 1900 work solution.
Brown Colourant	A brown colourant additive is available for aesthetic use.
Ultrawood	Ultrawood may be added to ACQ 1900 solutions to impart weathering resistance to treated wood.
De-Foamer	ACQ 1900 may generate foam if vigorously agitated. De-Foamer is available if required.
Timber Condition Before Treatment Refer to BS 5589:1989	<p>It is the treater's responsibility to ensure that the timber condition before treatment meets the following minimum standards:</p> <p>The timber must be free from attack by wood destroying fungi or wood destroying insects.</p> <p>The wood surface must be clean and free from bark, dirt, mud and water or any kind of paint, or other surface coating.</p> <p>The timber must not be frozen.</p> <p>Plastic or other types of wrap must be completely removed.</p> <p>The species of the timber must be identified.</p> <p>All timber must be dried to 28% moisture content, or less with the exception of Spruce which must be dried to between 30 and 40% moisture content.</p> <p>The moisture content must be checked before every charge using an electrical resistance moisture meter with hammer probes.</p> <p>Timber which does not meet these minimum conditions must not be treated.</p> <p>Charges of mixed timber species should be avoided wherever possible. If unavoidable, mixed charges must be treated to the most intensive specification for the mixture of timber in the charge.</p> <p>Imprá recommends that species which are extremely resistant to treatment are incised before treating.</p>

Formal Treatment Standards:	<p>A wide range of treatment parameters are specified in a series of formal standards including, but not limited, to the following:</p> <p>EN 335, Hazard Classes of Wood Against Biological Attack EN 350, Guide to Natural Durability and Treatability of Species EN 351, Classification of Preservative Penetration and Retention EN 599, Durability of Wood and Wood Based Products EN 15228, Structural Timber Preservative Treated Against Biological Attack.</p> <p>It is the treaters responsibility to ensure that it adopts the correct treatment parameters for the particular end use for that timber.</p>
-----------------------------	--

Under no circumstances should ACQ be applied to wood at less than the following MINIMUM application rates.

		Permeable and Moderately Resistant Species		Resistant and Extremely Resistant Species	
Hazard Class	Minimum Solution%	Minimum Penetration	Minimum Retention	Minimum Penetration	Minimum Retention
2	2%	3mm	8 kgs/m ³	3mm	8 kgs/m ³
3	2%	Full Sapwood	8 kgs/m ³	3mm	8 kgs/m ³
4	3%	Full Sapwood	16.4 kgs/m ³	6 mm	16.4 kgs/m ³

During Impregnation	<p>The solution temperature should not fall below +5°C. The plant should be capable of drawing a vacuum of -0.8 bar (24 ins Hg) and generating a hydraulic pressure of 12.4 bar (180 psi). Our Engineering Department offers a 6 monthly service and maintenance contract on request, to ensure the plant is capable of achieving the required vacuum and pressure.</p> <p>Vacuum and pressure times must be held until penetration of preservative and preservative retentions are achieved in accordance with treatment specifications.</p> <p>For permeable and moderately resistant species Imprpa recommends a minimum initial vacuum of 30 minutes and a minimum of 60 minutes at full pressure.</p> <p>For resistant and extremely resistant species Imprpa recommends a minimum initial vacuum of 60 minutes and a minimum of 120 minutes at full pressure.</p>
---------------------	---

Fixation	<p>Copper fixes rapidly to wood by ion exchange and complexing with lignin and hemicellulose components in wood.</p> <p>Quat fixes very quickly to wood by ion exchange and adsorption.</p> <p>It is a statutory condition of use that, “Freshly treated timber must be stored until surfaces are dry, within a bunded area on a site maintained to prevent loss of treatment product to the environment.”</p>
----------	---

Treatment Records	<p>It is the treaters responsibility that each batch of timber treated must be recorded on a numbered and dated "Charge Sheet". (available from Impra on request).</p> <p>Records must include the following minimum information: Customers name, treatment specification, timber species, dimensions, volume, moisture content, vacuum and pressure applied, time vacuum and pressure is held, solution concentration used, solution volume absorbed and calculated charge retention per m³ of timber treated.</p>
Checking Treatment Specifications Are Met	<p>Treatment specifications clearly define penetration classes and minimum product retentions for timber end uses. It is the treaters responsibility to ensure that the minimum preservative penetration and retention is achieved. These can be readily confirmed after treatment. A coloured reagent can test preservative penetration in treated wood. Treated wood can be analysed for preservative retention by most competent laboratories or on request by Impra. Records of testing must be kept at the treaters premises for future inspection.</p>
Drying Treated Wood	<p>Treated timber should be dried to a moisture content compatible with its end use, before installation. Typically timber used inside buildings should be dried to ~ 14% MC. Timber used outdoors e.g. fencing etc. should be air dried before use.</p> <p>Contact our Technical Department for advice on kiln drying treated wood.</p>
Effective Use of ACQ 1900 Preserved Wood	<p>All sawing profiling etc. must be carried out before impregnation however minor cross cuts, drilling or notching carried out during installation, are permitted provided the exposed surfaces are liberally coated with an approved Cut End Preservative. Cut Ends must never be placed in Use Class 4 Applications.</p> <p>Full details are available on the "Consumer Information Sheet"</p>
Fixing and Fasteners	<p>Always use high quality fasteners e.g. stainless steel or hot dipped galvanised steel. Low cost electroplated fasteners are not suitable for outdoor use. Treated wood should not be used in direct contact with aluminium.</p> <p>Full details are available from Impra.</p>
Appearance	<p>ACQ 1900 Preserved Wood is olive green and weathers to a tan brown colour, which will eventually fade to silver grey.</p>
Paint / Stain / Gluing	<p>ACQ 1900 Preserved Wood will accept most paints, stains and adhesives. Timber must be clean and dry. Always follow the manufacturer's instructions and test a sample to ensure satisfactory results.</p> <p>Contact our Technical Department for advice on laminating ACQ 1900 Preserved Wood</p>
4. Special Instructions for Handling	
	<p>ACQ 1900 concentrate may cause burns if in direct contact with eyes or skin and is harmful if swallowed or inhaled. ACQ 1900 is very toxic to aquatic organisms. Appropriate precautions must be taken during storage and use.</p> <p>Refer to the Material Safety Data Sheet (MSDS) for full information</p>
5. First Aid Procedures	

Eye Contact:	Immediately flush eyes with plenty of clean flowing water for at least 15 minutes. Consult a specialist and show the Material Safety Data Sheet.
Skin Contact:	Take off all contaminated clothing immediately, wash skin soap and plenty of water. Wash contaminated clothing before re-use. If medical attention is required show the Material Safety Data Sheet.
Inhalation:	Immediately remove affected person to fresh air. If the casualty is not breathing administer artificial respiration. Seek medical attention and show the Material Safety Data Sheet.
Ingestion:	If conscious, drink 1 or 2 glasses of water. Do not attempt to induce vomiting. Never give anything orally to an unconscious person. Seek medical attention and show the Material Safety Data Sheet.
6. Emergency Procedures	
Fire	Fires including ACQ 1900 or ACQ Preserved Wood should be extinguished with water fog. DO NOT USE WATER JET as this may result in a spread of preservative to the environment. If containers are exposed to fire, keep them cool by spraying with water fog. Irritating and toxic gases and / or fumes may be generated during combustion. Firefighting personnel should wear breathing apparatus. Other personnel in the vicinity should be evacuated. Ensure the emergency services have access to an MSDS.
Spillage	If ACQ 1900 is spilled outside the dedicated treatment area, absorb liquid in earth or sand and remove this material to a safe place. Do not absorb in sawdust or other combustible material. Prevent liquid entering sewers or watercourses. Place contaminated material in suitable containers and dispose of by approved waste disposal methods. If preservative unavoidably enters watercourses or drains inform the water authority immediately.
7. Waste Disposal	

It is recommended that waste minimisation practices be followed. Concentrated and dilute solutions or insoluble preservative wastes should be disposed of as hazardous waste in accordance with local authority requirements.

Treated wood waste should be disposed of by a method approved by the local waste disposal authority.

Treated waste must not be used for barbeques or for animal bedding.

Empty containers should be washed clean and recycled or disposed of by a method approved by the local waste disposal authority.

For further information contact

Impra Wood Protection Ltd.

Park Road Industrial Estate

Barrow in Furness

Cumbria LA14 4EQ

United Kingdom

Tel:- +44 1229 877 533

Email:- info@impra.biz