



PROTAVIC WORLDWIDE

EUROPE		EUROPE		EUROPE	
AUSTRIA	PROTEX WARENHANDELSGES .M.B.H. A-1030 WIEN Tel : (43) 01 73 93 864 Fax : (43) 01 71 37 552	SPAIN	QUIMOPROX S.L. 08187 SANTA EULALIA DE RONCANA (Barcelone) Tel : (34) 93 844 66 94 Fax : (34) 93 844 77 37	UNITED KINGDOM	PROTEX CHEMICALS Ltd SWILLINGTON - LEEDS LS 26 8 XT Tel : (44) 0113 2876002 Fax : (44) 0113 2875003 protex.chemicals@virgin.net
BELGIUM	PROTEBEL B-1040 BRUXELLES	ITALY	ICROM INDUSTRIA CHIMICA SPA 20049 CONCOREZZO (Mi) Tel : (39) 39 604 08 36 Fax : (39) 39 604 17 42 icrom@rete039.it	SWEDEN	PROTEX SVERIGE AB LANDSKRONA Tel : (46) 0418/58470 (46) 0418/18950 Fax : (46) 0418/58788
DENMARK	PROX KEMI APS 1879 FREDERIKSBERG C		PROX-ITALIA PRODOTTI CHIMICI Srl 20049 CONCOREZZO (Mi) Tel : (39) 39 604 29 01 Fax : (39) 39 604 17 68 proxitalia@rete039.it	SWITZER- LAND	PROTEX CHEMIE BASEL AG 4054 BASEL (CH) Tel : (41) 061-302 0066 Fax : (41) 061-302 0076
FRANCE	AQUAPROX 92305 LEVALLOIS-PARIS Tel : 33 (0) 1 41 34 14 00 Fax : 33 (0) 1 41 34 14 16 postmaster@protex-international.com			ASIA	
	BIOPROX 92305 LEVALLOIS-PARIS Tel : 33 (0) 1 41 34 14 00 Fax : 33 (0) 1 41 34 14 16 postmaster@protex-international.com	NETHER- LANDS	PROTEX NEDERLAND BV M. Roosenboomlaan 35 NL - 7545 RX ENSCHEDE Tel : 31 (0) 53 431 1640 Fax : 31 (0) 53 434 7556	HONG- KONG	PROX-ASIA Ltd Tsuen Wan, N.T., HONG KONG Tel : (852) 2407 5699 Fax : (852) 2408 7185 proxasia@netvigator.com
	PROTAVIC 92305 LEVALLOIS-PARIS Tel : 33 (0) 1 41 34 14 00 Fax : 33 (0) 1 41 34 14 16 postmaster@protex-international.com	PORTUGAL	PROX LDA 4470 MAIA Tel : 351 2 9415019 Fax : 351 2 9415022	SOUTH KOREA	PROTEX KOREA Co Ltd 661-32 - YEOKSAM-DONG- KANGNAM-KU -SEOUL, 135-080 Tel : (82) 02/3453 8213 Fax : (82) 02/3453 8082
	PROTEX 92305 LEVALLOIS-PARIS Tel : 33 (0) 1 41 34 14 00 Fax : 33 (0) 1 41 34 14 16 postmaster@protex-international.com	NORTH AMERICA			BELL Hi. TEC Inc. 1675-1 The 4th Ind. Shinil-Dong Dae duk-gu - Daejeun - Korea Tel : (82) 42 933 5590/2 Fax : (82) 42 933 5593/4 Email : Bellhi@united-co.kr
	SYNTHRON 92305 LEVALLOIS-PARIS Tel : 33 (0) 1 41 34 14 00 Fax : 33 (0) 1 41 34 14 16 postmaster@protex-international.com	USA	SYNTHRON Inc. MORGANTON NC 28655-9362 Tel : 1 828 437 8611 Fax : 1 828 437 4126 synthron@hci.net	THAILAND	THAI-PROX Ltd Klongtoey - BANGKOK 10110 Tel : (66) 2 254-9562 / 656-9568-9 Fax : (66) 2 254-9563 pga@thaiprox.co.th
	J et E SOZIO-DESCOLLONGES 92305 LEVALLOIS-PARIS Tel : 33 (0) 1 41 34 14 00 Fax : 33 (0) 1 41 34 14 16 postmaster@protex-international.com		FAR RESEARCH Inc. PALM BAY (FL) 32905-2548 Tel : 1 321 723 6160 Fax : 1 321 723 8753 far_research@bellsouth.net	INDONESIA	PT PRODIAN CHEMICALS BANDUNG - WEST JAVA 40222 Tel : (62) 22 594 5628 Fax : (62) 22 594 5626 prodian@bdg.centrin.net.id
	BOURIGEAUD INDUSTRY 92305 LEVALLOIS-PARIS Tel : 33 (0) 1 47 48 02 33 Fax : 33 (0) 1 47 48 06 14 postmaster@protex-international.com		J & E SOZIO Inc. EDISON (NJ) 08820-1102 Tel : 1 908 755 7488 Fax : 1 908 755 6006 J.E. SOZIO@att.net	CHINA	SINO-PROX CHEMICALS Ltd GUANGDONG - 526 100 Tel : (86) 758 836 1055 (86) 758 836 1156 Fax : (86) 758 836 1052
GERMANY	PROTEX EXTROSA D-79504 LÖRRACH Tel : (49) 07621/84772 Fax : (49) 07621/12 429		IPN Inc. 151 Essex Street - 4th floor HAVERHILL, MA 01832 Tel : 1 978 372 2016 Fax : 1 978 372 5334 Email : IPN@mva.net Web address : www.ipn_indus.com	NORTH AFRICA	
	C.V.G. D-76661PHILIPPSBURG- HUTTENHEIM Tel : (49) 07256 9306-0 Fax : (49) 07256 9306-33		KINGS RESEARCH Inc. PALM BAY (FL) 32905-25448 Tel : 1 321 754 51 52 Fax : 1 321 786 89 32 kingsresearch@bellsouth.net	MOROCCO	SPECHIMA 20600 CASABLANCA - AIN SEBAA Tel : 212 22 35 65 07 / 212 22 34 34 98 Fax : 212 22 35 92 40

PROTAVIC® C 3462 LV

A 28990-08-05 A

DEFINITION

Pure silver-based electroconductive varnish in solvent, cured by heating, for applying a conductive coating by dipping, especially on tantalum capacitors. Characteristic features are its thermo-stable base and slow rate of settling.

The **PROTAVIC® C 3462 LV** has been specially designed to only leave a limited drop under the sheet of tantalum after dipping on an automatic machine.

PRODUCT DESCRIPTION

Appearance	liquid	
Odour	fruity	
Colour	silver	
Guaranteed specifications	Standards	Methods
Volume resistivity (mΩ.cm) 30 min. at 20°C + 5 min. at 200°C	< 0.2	ECA 1
Brookfield viscosity at 25°C (mPa.s) Mobile 2 - Speed 10 rpm	1 000 ± 200	NFT 51210
% Dry matter (P:90:10/170/4)	63 ± 3	S 9613
Other information		
Storage stability at T < -20°C at T 20 ± 5°C	1 year 2 months	
Curing conditions	30 min. at 20°C + 15 min. at 125°C or 30 min. at 20°C + 5 min. at 230°C	
Density	1.6 approx.	
Flash point	62°C	
Diluent (if needed)	DILUANT PROTAVIC® 434	

METHOD OF USE

A - Application process

Before being used in any way, the **PROTAVIC® C 3462 LV** must be made absolutely homogeneous by stirring in its original container (using a spatula

for small amounts) or by rolling the bottle slowly for between 4 and 12 hours at a speed of 5 to 15 rpm.

The **PROTAVIC® C 3462 LV** does not require an undercoat. It adheres simply as a result of the evaporation of the solvent which it contains. The surface to which it is applied must be dry and free from any traces of oil, grease or dust.

The **PROTAVIC® C 3462 LV** can be used as supplied, after having homogenized it as previously described.

Given its original viscosity, the application processes are as follows :

- dipping
- stencilling.

However, a diluent (exclusively the **DILUENT PROTAVIC® 434**) may be added until the desired viscosity is achieved, for special applications, in particular spraying.

The **DILUENT PROTAVIC® 434** may also be used for removing any **PROTAVIC® C 3462 LV** which has been incorrectly applied before it undergoes drying and curing and for cleaning the equipment used for applying it.

B - Drying

The **PROTAVIC® C 3462 LV** must be dried in open air or in a ventilated oven (set to a temperature of about 65°C) ; it is also possible to remove its solvent system (in the space of somewhere between a few minutes and quarter of an hour depending on the thickness deposited) by infrared drying.

With thin layers this is not necessary.

C - Curing conditions

After the evaporation of its solvent phase, the **PROTAVIC® C 3462 LV** can be cured at 125°C in 14-15 min.

Very good results in terms of adhesion and conductivity are achieved by curing for 30-60 min. at 150°C.

When the curing temperature is not an obstacle for the component or the manufacturing process, curing for 30 min. at 175°C enables the user to achieve optimum adhesion, conductivity and protection against harmful environmental factors.

Temperatures of around 205°C or over produce very good results with curing times of less than 5 min.

TYPICAL PROPERTIES OF CURED PROTAVIC® C 3462 LV

A - Electrical properties

Curing conditions	Volume resistivity(*)
30 min. at 20°C + 1 h at 125°C	0.2 m-ohm.cm
30 min. at 20°C + 30 min. at 150°C	0.15 m-ohm.cm
30 min. at 20°C + 15 min. at 175°C	0.1 m-ohm.cm

(*) ECA 1 Method (Method available on request)

B - Glass transition temperature

Curing conditions	Glass transition temperature (**)
30 min. at 20°C + 15 min. at 175°C	70-90°C

(**) Values obtained by differential calorimetric analysis.

C - Thermostability in air

A thermogravimetric analysis (***) of **PROTAVIC® C 3462 LV** cured for 15 min. at 175°C gives :

Decomposition temperature in air	350°C approx.
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D - Ionic purity

Chlorine content	< 5 ppm
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(***) 10°C/min. in a stream of air (200 ml/mn)

FIELD OF APPLICATION

The **PROTAVIC® C 3462 LV**'s good properties and ease of use mean that it finds its preferred use in the field of electronics, both for professional users and the general public, when seeking to achieve electro-conductive, thermostable coatings and carry out sticking operations, especially for :

- resistors, capacitors, etc.
- fixing conductive wires on quartz crystal,
- producing electroconductive tracks,
- producing electroconductive coatings, etc.

STORAGE CONDITIONS

The **PROTAVIC® C 3462 LV** must be stored at a temperature below 25°C in order to keep its initial properties.

It also needs to be kept in its hermetically sealed container in order to prevent losses of solvent through evaporation.

If necessary, any losses due to evaporation can be made good by adding diluent (exclusively the **DILUENT PROTAVIC® 434**).

Storage temperature	< -20°C	20°C ± 5°C
Storage time	1 year	2 months

PRECAUTIONS OF USE

Refer to the enclosed safety data sheet.

PACKAGING

The **PROTAVIC® C 3462 LV** is supplied in 2 kg flasks.

The information contained in this data sheet corresponds to the present state of our knowledge ; it is intended for your guidance but we are not bound by it since we are not in a position to exercise control over the manner in which our products are used. Moreover, the attention of the user is drawn to the risks that could possibly occur should a product be used for an application other than that for which it is intended.